A Social Analysis of Viking Jewellery from Iceland.

Michèle Mariette Hayeur Smith

Submitted for the degree of PhD in the Department of Archaeology,
University of Glasgow, January, 2003

© Michèle M. Hayeur Smith 2003
ABSTRACT

Viking Studies has, until recently, dedicated a significant portion of the study of jewellery to typological scrutiny and the analyses of style and design. While important and necessary components of archaeology, the social aspect has frequently been overlooked. Jewellery as an element of adornment is part of a greater symbolic system used to convey subtle messages of social and cultural identity.

This thesis is original in attempting to decipher the social messages conveyed in jewellery. Using former research on jewellery typology and design, I have also incorporated adornment theory, the study of the body, as well as the saga literature. Furthermore, I have focused on Viking material from Iceland in hope to reach a better understanding of the social dynamics at work in early Icelandic society of the landnám. As jewellery is part of adornment, I have chosen a broad definition of jewellery and included under this heading traditional forms as well as less typical items of jewellery such as elements of weaponry.

Stemming mostly from burial data-sets, it was demonstrated that jewellery during the landnám played a significant role in three realms of society: in gender roles and as gender identifiers, in social status and social rank distinction, and in the magico-religious dimension of society.

The technological aspects of jewellery production were also considered revealing that the technological attributes of jewellery, such as metals used, and quality of craftsmanship further enhanced these same social concerns and messages discussed above. As part of the technological analysis, the question of local Icelandic jewellery production was explored reviewing older data-sets and conducting experimental trials on mould-making and casting.
techniques of the Viking period, in order to verify if these methods could be easily applied to the new colony.

In this thesis Icelandic jewellery from the landnám was reviewed under as many different angles as possible demonstrating that jewellery and material culture carry social messages which can contribute to a better understanding of past societies.
## CONTENTS

**ABSTRACT** ............................................................................................................... 2

**CONTENTS** ............................................................................................................... 4

**LIST OF TABLES** .................................................................................................... 11

**LIST OF ILLUSTRATIONS** .................................................................................. 12

**LIST OF PLATES** .................................................................................................. 15

**ACKNOWLEDGEMENTS** ....................................................................................... 17

### CHAPTER 1. INTRODUCTION

THE AIMS AND OBJECTIVES OF THE RESEARCH .................................................. 22

THE HISTORICAL, POLITICAL, SOCIAL AND GEOGRAPHICAL SETTING OF
EARLY ICELAND ........................................................................................................ 27

  - The geography and landscape of Iceland ..................................................... 27
  - The environmental changes of Iceland's landscape .................................. 28

THE SETTLEMENT, ITS BEGINNING AND DATING IN ICELANDIC ARCHAEOLOGY
................................................................................................................................. 30

  - Tephrochronology ......................................................................................... 32

THE ORIGINS OF THE PEOPLE ................................................................................ 33

  - Scandinavia ..................................................................................................... 33
  - The Celtic component of the population ..................................................... 34

SETTLEMENT PATTERNS AND SUBSISTENCE ..................................................... 36

SOCIAL ORGANISATION, AND SOCIAL CATEGORIES ........................................... 43

  - Chieftains: Goði- chieftaincy : goðorð ....................................................... 44
  - Free farmers-Bændur .................................................................................... 49
  - Slaves ............................................................................................................. 50

THE SOCIAL ANALYSIS OF JEWELLERY AND ITS RELEVANCE TO
UNDERSTANDING THE EARLY SETTLEMENT OF ICELAND ............................... 53

### CHAPTER 2. HISTORY OF RESEARCH .................................................................. 55

HISTORY OF RESEARCH, SCANDINAVIA ................................................................ 55
CHAPTER 3. THE THEORETICAL FRAMEWORK OF ADORNMENT THEORY AND BURIAL ANALYSIS

JEWELLERY AS ADORNMENT ........................................................................................................ 85
THE BODY AND ADORNMENT THEORY .................................................................................. 86
The body ......................................................................................................................................... 86
ADORNMENT THEORY .................................................................................................................... 89
Past theories of dress and adornment ...................................................................................... 90
Recent theories of adornment, and adornment as social expression, group affiliation and identity ......................................................................................................................... 93
Further distinctions of dress and adornment ............................................................................... 96
DEATH AND BURIAL DATA ........................................................................................................... 98
The social implications of death ................................................................................................. 98
BURIAL ANALYSIS, APPROACH AND FRAMEWORK............................................................ 100
JEWELLERY, ADORNMENT THEORY, AND BURIAL ANALYSIS APPLIED TO THE ICELANDIC CONTEXT ......................................................................................................................... 103

CHAPTER 4. RESEARCH METHODOLOGY ............................................................................. 106

PART 1. DATA COLLECTION ................................................................................................... 106
ARTIFACT ANALYSIS .................................................................................................................. 106
Definition of Jewellery ................................................................................................................ 106
DATA COLLECTION, NATIONAL MUSEUM OF ICELAND ...................................................... 107
National Museum of Iceland ........................................................................................................ 119
DATA COLLECTION, NATIONAL MUSEUM OF COPENHAGEN .................................................. 120
CHAPTER 5. THE ICELANDIC CORPUS AND ITS
ARCHAEOLOGICAL CHARACTERISTICS

GEOGRAPHIC PROVENANCE OF VIKING JEWELLERY WITHIN ICELAND, AND
ITS RELATIONSHIP TO SETTLEMENT AND BURIAL SITES

TIME FRAME OF VIKING JEWELLERY FROM ICELAND

ICELANDIC VIKING JEWELLERY, ITS PROVENANCE IN THE VIKING WORLD

JEWELLERY OF SCANDINAVIAN ORIGIN

Trefoil brooches

Scandinavian type ringed pins

Belt buckles

Oval brooches

Round, penannular and Urnes style brooches

Pendants

Strap ends

Sword chapes and sword hilts

Bracelets and beads

JEWELLERY OF INSULAR ORIGIN

Bells

Pins

Ringed pins

Trefoil brooches

Penannular brooches

Strap ends

Bracelets and miscellaneous items
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic, Eastern European, and Oriental Jewellery</td>
<td>189</td>
</tr>
<tr>
<td>Baltic</td>
<td>189</td>
</tr>
<tr>
<td>Oriental jewellery</td>
<td>196</td>
</tr>
<tr>
<td>Jewellery from Continental Europe</td>
<td>197</td>
</tr>
<tr>
<td>Jewellery from Iceland</td>
<td>200</td>
</tr>
<tr>
<td>The Icelandic material in relation to the rest of the North Atlantic and Viking World</td>
<td>202</td>
</tr>
<tr>
<td>Norway</td>
<td>203</td>
</tr>
<tr>
<td>Iceland in relation to Norway's burial customs</td>
<td>207</td>
</tr>
<tr>
<td>Scotland</td>
<td>210</td>
</tr>
<tr>
<td>Ireland</td>
<td>213</td>
</tr>
<tr>
<td>Iceland's burial customs and its connection to the Viking world</td>
<td>216</td>
</tr>
<tr>
<td>Chapter 6. Jewellery as a Socio-Cultural Symbol</td>
<td>218</td>
</tr>
<tr>
<td>Part 1. Jewellery and Gender</td>
<td>219</td>
</tr>
<tr>
<td>Defining sex and gender in archaeology</td>
<td>219</td>
</tr>
<tr>
<td>Gender theory</td>
<td>222</td>
</tr>
<tr>
<td>Gender roles and the position of women in Norse society</td>
<td>227</td>
</tr>
<tr>
<td>Male social superiority in the Viking Age</td>
<td>227</td>
</tr>
<tr>
<td>Free Women</td>
<td>230</td>
</tr>
<tr>
<td>Concubines and the unfree</td>
<td>234</td>
</tr>
<tr>
<td>Division of labour</td>
<td>235</td>
</tr>
<tr>
<td>The body, dress, jewellery, and gender roles</td>
<td>236</td>
</tr>
<tr>
<td>Body and adornment theory</td>
<td>236</td>
</tr>
<tr>
<td>The archaeological data: male and female graves and their jewellery</td>
<td>240</td>
</tr>
<tr>
<td>Gender and status distinctions</td>
<td>244</td>
</tr>
<tr>
<td>Interpretation of the data and discussion</td>
<td>248</td>
</tr>
<tr>
<td>Male jewellery and the description of male dress</td>
<td>249</td>
</tr>
<tr>
<td>Female jewellery and adornment</td>
<td>253</td>
</tr>
<tr>
<td>Jewellery and gender in the Icelandic Viking Age context</td>
<td>260</td>
</tr>
<tr>
<td>Part 2. Jewellery and Status</td>
<td>263</td>
</tr>
<tr>
<td>Defining status in mortuary remains</td>
<td>263</td>
</tr>
<tr>
<td>Oval brooches</td>
<td>264</td>
</tr>
<tr>
<td>The Icelandic context</td>
<td>265</td>
</tr>
<tr>
<td>Status ranking and jewellery in Icelandic graves</td>
<td>267</td>
</tr>
</tbody>
</table>
Particularities in the Icelandic female burials ........................................... 268
JEWELLERY AS A SYMBOL OF PERSONAL, AND CULTURAL IDENTITY ................. 273
The heirloom, status, and issues of cultural identity..................................... 273
SOCIAL CLIMATE OF EARLY ICELAND AND QUESTIONS OF IDENTITY ............ 278

PART 3: JEWELLERY AND THE MAGICO-RELIGIOUS DIMENSION OF SOCIETY IN EARLY ICELAND ............................................................................... 282

THE CREATION MYTH AND THE ORGANISATION OF THE WORLD ................... 283
THE NORSE PANTHEON ............................................................................. 285
NORSE RELIGIOUS PRACTISE AND THE DISTINCTION BETWEEN RELIGION AND MAGIC .............................................................................................................. 286
Religious display and behaviour ..................................................................... 288
Magical display and behaviour in the literary sources .................................. 289
THE DATA: MAGICO-RELIGIOUS JEWELLERY ............................................. 291
INTERPRETATION OF THE DATA ................................................................. 292
Thor’s hammer and cross pendants ............................................................... 293
Arm rings .............................................................................................................. 299
Beads ..................................................................................................................... 304
Bells ....................................................................................................................... 309
RELIGIOUS DRESS AND ADORNMENT ......................................................... 310
CONCLUDING REMARKS ............................................................................ 313

CHAPTER 7. JEWELLERY MATERIALS, CRAFTSMANSHIP, TECHNIQUE AND NON-FERROUS METAL PRODUCTION IN ICELAND .............................................. 315

PART 1: JEWELLERY TECHNIQUES, MATERIALS AND CRAFTSMANSHIP ................................................................................................................................. 315

JEWELLERY AND MATERIALS: RESULTS FROM THE DATABASE .................. 315
The social message in metals .......................................................................... 319
QUALITY OF WORKMANSHIP: RESULTS FROM THE DATABASE ................. 322
Social concerns ................................................................................................... 323
JEWELLERY AND TECHNIQUES .................................................................... 325

PART 2: NON-FERROUS METAL-WORKING IN EARLY ICELAND: REVIEW OF OLDER DATA-SETS ......................................................................................... 329

LITERATURE ............................................................................................. 329
ARCHAEOLOGICAL EVIDENCE FOR NON-FERROUS METAL-WORK IN VIKING AGE ICELAND, REYKJAVÍK ................................................................. 330
HERJOLFSDALUR, VESTMANNÆYR ................................................................. 340
BASIC DESCRIPTION OF THE MOULD MAKING PROCESS BASED ON EXPERIMENTAL TRIAL CONDUCTED AT THE GLASGOW SCHOOL OF ART... 385

Obtaining a Viking period oval brooch ........................................................ 385
The clay and tempers ..................................................................................... 386
Mould making .................................................................................................. 387

RESULTS FROM THE EXPERIMENTAL TESTS AND DISCUSSION OF PAST RESEARCH IN LIGHT OF THESE RESULTS ..................................................... 388
The master model: wax ..................................................................................... 388
The use of existing brooches or brooch dyes ........................................... 389
Fabric imprints and the use of piece moulds ............................................. 401
Tempers ............................................................................................................. 405
Sprues, keys, and hooks ............................................................................. 409
Firing ................................................................................................................. 410
Casting .............................................................................................................. 415

CONCLUSION DRAWN FROM THE EXPERIMENTAL TRIALS ............... 420

APPENDIX B: DATA TABLES ........................................................................... 422

BIBLIOGRAPHY .............................................................................................. 492
LIST OF TABLES

TABLE 1: Diagram illustrating how adornment functions socially ........................................ 104
TABLE 2: Diagram summarising database lay-out. ............................................................... 121
TABLE 3: Final lay-out of database design ........................................................................ 122
TABLE 4: Age groups as stipulated by Gestsdóttir and corresponding categories utilised in the database. .................................................................................. 126
TABLE 5: Distribution of jewellery found in different archaeological contexts. ................................................................. 139
TABLE 6: Number of sites per Sýsla where jewellery was found .......................................... 142
TABLE 7: Distribution of jewellery based on assumed provenance ...................................... 150
TABLE 8: Types of Scandinavian jewellery in the corpus and numbers .................................. 151
TABLE 9: Table of oval brooches for Iceland ........................................................................ 158
TABLE 10: List of insular items in the Iceland corpus and quantities .................................... 170
TABLE 11: List of possible locally made jewellery from Iceland and numbers ......................... 180
TABLE 12: Estimated number of Viking period graves in the North Atlantic ......................... 200
TABLE 13: Distribution of male/female graves from Iceland ................................................. 211
TABLE 14: Contingency table of male and female Icelandic Viking Age graves with and without items of jewellery ............................................................... 241
TABLE 15: Distribution of jewellery in graves according to sex ........................................... 242
TABLE 16: Contingency table comparing the number of male and female Icelandic Viking Age graves with the number of items of jewellery associated with each sex in those graves ........................................................................ 243
TABLE 17: Recorded number of graves with jewellery ......................................................... 247
TABLE 18: Types of jewellery encountered according to each gender ................................ 248
TABLE 19: Numbers of graves with specific weapon types .................................................. 252
TABLE 20: Distribution of female graves with and without oval brooches ............................. 267
TABLE 21: Jewellery of magico-religious origin ................................................................. 292
TABLE 22: Distribution of materials used in Icelandic jewellery ........................................ 316
TABLE 23: Degree of craftsmanship noted in Icelandic jewellery ....................................... 323
TABLE 24: Distribution of techniques used in the Icelandic corpus .................................... 326
TABLE 25: Stray finds ........................................................................................................ 352
TABLE 26: Graves ............................................................................................................. 357
TABLE 27: Mass production of oval brooches ................................................................. 383
TABLE 28: Making of the mould ...................................................................................... 384
TABLE 29: Mould sample created with admixture of peat and sand .................................... 406
TABLE 30: Samples used in casting, with results ............................................................... 415
LIST OF ILLUSTRATIONS

FIGURE 1: ICELAND IN RELATION TO EUROPE AND GREENLAND ............................................. 27
FIGURE 2: MAP OF ICELAND ........................................................................................................ 28
FIGURE 3: GRAVE DISTRIBUTION FOR ICELAND .................................................................... 140
FIGURE 4: DISTRIBUTION OF SITES WITH JEWELLERY PER STÍLSLÁ ...................................... 141
FIGURE 5: TREFOIL BROOCH FROM STÓRA NÚPI (No.9332) (5.3CMX 6.8CM) ...................... 145
FIGURE 6: SWORD CHAPE FROM VESTFÍRDIR (No. 3048) (6CM X 4.1CM) ......................... 146
FIGURE 7: URNES STYLE BROOCH FROM TROLLASKOGI (No.6524) (3.9CMX 3.6CM) .... 147
FIGURE 8: URNES STYLE BROOCH FROM SKÁNEY Í REYKJHOLTSDAL (No. 1593) (4CMX 3.8 CM) .......................................................................................................................... 147
FIGURE 9: TREFOIL BROOCH FROM DÁDASTÆÐIR (15691)F (5.4 CM X 5.8 CM) ............... 152
FIGURE 10: TREFOIL BROOCH FROM SNAEVHAMMUR (No.3930) (6.1 CM X 4.8 CM) ....... 152
FIGURE 11: ROUND BROOCH FROM KETILSTÆÐIR (No.12436) (3.8 CM X 3.2 CM) ........ 153
FIGURE 12: No. 15691E/S FROM DÁDASTÆÐIR (8.8 CM X 0.5 CM) ..................................... 154
FIGURE 13: SCANDINAVIAN TYPE PIN FROM KROPUR (No. 4888) (9.25CM X 0.35CM). .... 154
FIGURE 14: BELT BUCKLE FROM THE GRAVE AT DÁDASTÆÐIR (15691-7) (2.5CM X 1.5 CM) .......................................................................................................................... 155
FIGURE 15: BELT BUCKLE (NO 11557) FROM KÁPA (2.8 CM X 1.95) .................................. 155
FIGURE 16: BELT BUCKLE NO.13540 FROM KALDÁRHOÐFI (7.9CM X 3.5 CM) ................... 156
FIGURE 17: ROUND BROOCH FROM STÓRA SANDFELL (NO 256821) (2.9 CM X 2.9) ....... 159
FIGURE 18: ROUND BROOCH FROM ÝTRY-TJARNIR (NO. 14317) (2.5 CM X 2.8CM) ........ 159
FIGURE 19: ROUND BROOCH KÁLFORBORGARÁ (NO. 740) (2.6CM X 2.4 CM) ................. 160
FIGURE 20: ROUND BROOCH FROM POURLJÓTSSTÆÐIR (No.14034) (2.6CM X 2.4 CM) .... 160
FIGURE 21: PIN PORTION REMAINING FROM THE PENANNULAR BROOCH FROM PÆORSÁRDALUR (NO.97) (7 CM X 1.1 CM) .......................................................................................................................... 161
FIGURE 22: GRANAGIL PENDANT (NO.5217 A AND B, C HAS GONE MISSING) (2.6 CM X 3.2 CM) .......................................................................................................................... 162
FIGURE 23: NO. 5218 FROM GRANAGIL (3.3 CM X 2.65CM) .................................................. 162
FIGURE 24: ÝYRARTÍGÚR STRAP END (4.6CM X 1 CM) ......................................................... 163
FIGURE 25: SWORD AND HILT FROM KALDÁRHOÐFI (13535) (HILT: 13.2CM X 6.4CM) .. 165
FIGURE 26: HAFURBJARNARSTÆÐIR SWORD (NO.559) ON LEFT (HILT: 17.9CM X 11.1CM) AND ON THE RIGHT THE BASE WITH THE SWORD CHAPE STILL ATTACHED (CHAPE: 8.2CMX 4.2 CM) ................................................................. 166
FIGURE 27: KIRKJUBÓLSDAL SWORD CHAPE (NO. 3582) (6.4CM X 4.2CM) ....................... 167
FIGURE 28: SWORD CHAPE FROM TANNSKADABÁKKI (NO. 2756) (7.55CM X 4.25 CM) ... 168
FIGURE 29: BRACELET FROM EYRARTÍGUR (NO.10891) (8.1 CM X 5.8 CM) ..................... 169
FIGURE 30: THE BELL FROM BRÚ (NO.1198) (2.6CM X 2.6 CM) ........................................ 171
FIGURE 31: BELL FROM KORSÁ (NO.1781) (2.65 CM X 1.95 CM) ........................................ 171
FIGURE 32: VATNADALUR BELL (NO. 1964:126) (2.1CM X 1.9 CM) .................................... 172
FIGURE 33: BONE PIN FROM ÝMARBERG (NO.11296) (16.3 CM X 1.4 CM) ...................... 173
FIGURE 34: NO. 13667 FROM HAFURBJARNARSTÆÐIR (15CM X 0.45 CM) ......................... 175
FIGURE 35: RINGED PIN (NO. 95-364) FROM ÝYRARTÍGÚR (11.7 CM X 1.8 CM) ............... 175
FIGURE 36: RINGED PIN FROM GNÚPVÆRJÁFÍRTI (NO. 5396) (17.3 CM X 1.9 CM) ......... 176
FIGURE 37: BALUSTER HEADED RINGED PIN DESCRIBED BY FANNING FROM POURLJÓTSSTÆÐIR (NO.736) (13.7CM X 1.7CM) .......................................................................................................................... 177
FIGURE 38: PIN FROM PURÍDARSTADIR ................................................................. 178
FIGURE 39: KIDNEY RINGED PIN FROM HLADIR (NO.13098) (15.45 CM X 1.5 CM) .... 178
FIGURE 40: TREFOIL BROOCH NO.13666 FROM HAFURBIJARNARSTADIR FOUND WITH PIN DISPLAYED ABOVE (3.9 CM X 4.8 CM) .................................................... 179
FIGURE 41: TREFOIL BROOCH NO. A 10696 FROM HÓLL, THE BACK PORTION IS DEPICTED IN CHAPTER 7 (4.6 CM X 4.8 CM) .......................................................... 180
FIGURE 42: NO. 5884 PENANNULAR BROOCH FRAGMENT FROM THE SANDMÚLÍ HOARD (7.5 CM X 3.4 CM) ................................................................................ 181
FIGURE 43: KNEE STRAP END AND BELT BUCKLE .................................................... 182
FIGURE 44: STRAP END FROM KROPPUR (NO.4888) (6.9 CM X 1.4 CM) ................. 182
FIGURE 45: STRAP END FROM PORGJÖTSTADIR (NO. 14013D) (6.2 CM X 1.4 CM) SIMILAR TO ONE FROM COLONSIAY .......................................................... 183
FIGURE 46: STRAP END FROM PORGJÖTSTADIR (NO. 14013E) (5.4 CM X 1.25 CM) .... 184
FIGURE 47: STRAP END FROM STAFN (NO.11495) .................................................... 184
FIGURE 48: SWORD POMMEL FROM KNAFAHÓLAR (NO.3958) (7.75 CM X 1.5 CM) .... 185
FIGURE 49: LIGNITE BRACELET FROM ALAUGAREY (NO. 11565) (7.6 CM X 7.6 CM) .... 186
FIGURE 50: POSSIBLE INSULAR PIECE FROM PURÍDARSTADIR (1974: 115) .............. 187
FIGURE 51: ROUND BROOCH FROM VAD (NO. 4340) (BROOCH: 3.6 CM X 3.6 CM; CHAIN: 15.5 CM, PLATE: 2.3 CM X 1.7 CM) ................................................. 190
FIGURE 52: ROUND BROOCH FROM GAUTLÖND (NO. 6355) (BROOCH: 3 CM X 3 CM; CHAIN: 13 CM) ............................................................. 191
FIGURE 53: ROUND BROOCH FROM KÁLFAFELLI (NO. 6976) (3.5 CM X 3.5 CM) ........ 192
FIGURE 54: SPEAR HEAD FROM KÓTMÚLA (NO. 1960 84) (SOCKET: 12.5 CM X 2 CM) .... 193
FIGURE 55: GOLD THREAD BUTTON FROM KÁPA (NO. 11556) (1.6 CM X 1.5 CM) ........ 194
FIGURE 56: THREE SILVER THREAD BUTTONS FROM THE SAME GRAVE AT KÁPA (NOS. 9089A,B,C) (1.4 CM X 1.2 CM) ......................................................... 195
FIGURE 57: BROOCH FROM AUSTASTA-REYDARVATN (NO. 6886) (4.75 CM X 5.05 CM) .... 196
FIGURE 58: PENANNULAR BROOCH FROM GUNNARSHOLT (NO. 358) (4.4 CM X 3.8 CM) .... 197
FIGURE 59: BEAD NECKLACE FROM MJÖIDALUR (NO. 10913-10914A/B) (22 CM X 1.8 CM; COINS: 2.7 CM) .............................................................. 198
FIGURE 60: HEART SHAPED STUD BUTTON FROM PURÍDARSTADIR (NO. 1974: 232) .... 199
FIGURE 61: STRAP END FROM KALDARHÖFDI (NO. 13541) (5.3 CM X 2.3 CM) ............. 200
FIGURE 62: NO. 13473 FROM ALFSTADIR (2.8 CM X 3.1 CM) ........................................ 201
FIGURE 63: SWORD OF UNKNOWN PROVENANCE WITH THE INSCRIPTION ULFBERHT INSCRIBED ON THE BLADE (HILT: 16.3 X 10.2) ........................................... 202
FIGURE 64: BONE PIN FROM DÆLI Í SKRÍFADAL (NO.1977:170)(9.45 CM X 1.35 CM) .... 203
FIGURE 65: IDENTICAL PAIR OF OVAL BROOCHES FROM PØRSÁRDALUR (M. 96A/B) (A: 11.3 CM X 6.2 CM; B: 11.3 CM X 6.2 CM) .......................... 204
FIGURE 66: CLOSE UP OF ONE OF THE KORNÁ TONGUE SHAPED BROOCHES (6.4 CM X 3.5 CM) .............................................................. 205
FIGURE 67: SKÓGAR Í FLÓKADAL BROOCHES (NO. 5030A/B) (A: 10.8 CM X 5.5 CM; B: 9.2 CM X 5.6 CM) .............................................................. 206
FIGURE 68: DÆDASTADIR BROOCHES ................................................................. 207
FIGURE 69: CROSS-LIKE PENDANT NO 2033 (4.4 CM X 4.4 CM) .............................. 208
FIGURE 70: AMULET FROM RANGÁ (NO.12384) (4.2 CM X 2.1 CM) ......................... 209
FIGURE 71: MASK FIGURES DEPICTED ON DANISH RUNE STONES ....................... 210

FIGURE 73: REYKJASEL PENDANT (NO.7696) (17cm x 2.5cm) ........................................ 306

FIGURE 74: NO 4868 FROM REYKJASEL FROM A FEMALE BURIAL (27CM X 2.1CM) ...... 307

FIGURE 75: BEAD NECKLACE FROM BIÓRK (NO.12736) (14.9CM X 1.85CM) ............ 307

FIGURE 76: BEAD FROM THE VATNSDALUR BOAT BURIAL (NO.1964: 131) (12.6CM X 2CM) .......................................................... 307

FIGURE 77: FROM MIKLAHOLT (NO.6464) (15CM X 1.6CM) ...................................... 308

FIGURE 78: NO. 803 (2CM X 2.1CM) ......................................................................... 318

FIGURE 79: DISTRIBUTION OF NON-FERROUS METAL PRODUCTION ACROSS ICELAND. 342

FIGURE 80: PUNCH TOOLS FROM HELGÖ ............................................................... 348

FIGURE 81: SILASTADIR, 13723, PUNCH .................................................................... 349

FIGURE 82: NO. 10696 FROM HÓLL (4.6CM X 4.8CM) ............................................. 353

FIGURE 83: BROOCH 190 FROM DALASÝSLA FRONT AND BACK VIEW (4.1CM X 4.9CM) 354

FIGURE 84: SWORD CHAPE FROM LIJÁRSKOGAR (NO. 5072) (8.55CM X 4.1 CM) ....... 354

FIGURE 85: COPPER ALLOY RING FROM VÓGUR Í MYRAR (NO.13) (3CMX 3CM) DISPLAYING CASTING FLAWS .................................................. 355

FIGURE 86: IRON THOR'S HAMMER FROM HOFSTADIR (3.8CM X 1.9CM), OF POSSIBLE LOCAL MANUFACTURE ...................................................... 355

FIGURE 87: BEAD 1325 FROM SILASTADIR (2.8CM X 1.9CM) MADE OF GLASS AND MOUNTED ON AN IRON RING ..................................................... 359

FIGURE 88: DADASTADIR BRACELET (NO15691(6))( 8.2CM X 6.6CM) AND THE SKANSINN EXAMPLE (01.1992) (7.2CM X 7.6CM) ...................................................... 359

FIGURE 89: PENANNULAR BROOCH FROM SILASTADIR (NO.13726) (15.6CM X 8.4CM) 360

FIGURE 90: THOR’S HAMMER FROM VATNSDALUR (1964:122) (3.5CM X 1.15CM) ...... 360

FIGURE 91: HOF BROOCH (371) (9.6CM X 5.8CM) WITH GROOVES CAST INTO THE BROOCH .......................................................... 392

FIGURE 92: NO.7931 FROM KALASTADIR (10.9CM X 6.9CM) ...................................... 394

FIGURE 93: No. 245 FROM ICELAND, WHERE MOTIF WAS VISUALLY COPIED FROM OTHER P48S (11.1CM X 7.2CM) ............................................................... 395

FIGURE 94: BERDAL STYLE ORNAMENT ON OVAL BROOCHES .............................. 396

FIGURE 95: No. 10912 WAS POSSIBLY CAST FROM EXISTING BROOCH (10.6CM X 7.2 CM) .................................................................................. 398
LIST OF PLATES

PLATE 1: BEAD FROM BÁRDARDAL MADE FROM LOCAL ICELANDIC STONE (1.9CM X 1.1CM) .............................................................. 201
PLATE 2: POSSIBLE DEPICTION OF FEMALE DRESS FROM SWEDEN ................................................................. 254
PLATE 3: TONGUE SHAPED BROOCHES FROM KORNŞK WITH BEADS SUSPENDED BETWEEN THE BROOCHES .............................................................. 269
PLATE 4: BRACELET FROM CASTLETOWN, CAITHNESS, NMS ................................................................. 302
PLATE 5: TOP VIEW OF THE REYKJAVÍK CRUCIBLE (NO. 500-448) ................................................................. 333
PLATE 6: REYKJAVÍK CRUCIBLE (NO. 500-448) (4.8CM X 4.5CM) ................................................................. 334
PLATE 7: REYKJAVÍK INGOT MOULD MADE FROM LOCAL ICELANDIC STONE ................................................................. 336
PLATE 8: NO. 695 FROM REYKJAVÍK, RING PORTION FROM RINGED PIN DISPLAYING CASTING FLAWS ................................................................. 338
PLATE 9: OTHER ANGLE OF THE SAME RING (NO. 695) FROM REYKJAVÍK DISPLAYING CASTING FLAWS ................................................................. 339
PLATE 10: THOR’S HAMMER CROSS FROM FOSSI ................................................................. 356
PLATE 11: SILICONE MOULDS OF VIKING PERIOD P51 BROOCH FROM THE GLASGOW MUSEUMS ................................................................. 386
PLATE 12: MAKING MOULDS USING EITHER WAX MODELS OR EXISTING BROOCHES ................................................................. 388
PLATE 13: REAY (NO. 334) NMS DISPLAYING GROOVES FOR WIRE DECORATIONS ................................................................. 391
PLATE 14: BROOCH 138 FROM BALLINABY (NMS) SILVER DECORATIVE WIRE ON THE SURFACE OF THE BROOCH ................................................................. 391
PLATE 15: WAX MASTER ................................................................. 400
PLATE 16: BROOCH MASTER ................................................................. 400
PLATE 17: FABRIC IMPRINTS ON THE INSIDE OF OVAL BROOCHES (NMS) ................................................................. 401
PLATE 18: FABRIC IMPRINT ON THE INSIDE OF OVAL BROOCHES (IL 223 NMS) ................................................................. 401
PLATE 19: EXAMPLE OF HOW FABRIC PUCKERS ON THE INSIDE OF THE WAX MODEL WHEN APPLIED TO THE WAX ................................................................. 402
PLATE 20: SAMPLE 10 WHERE LINEN WAS WAX DIPPED ................................................................. 404
PLATE 21: HALF MOULDS MADE OF NORTH SHORE CLAY ................................................................. 407
PLATE 22: MONT PINNACLE CLAY ................................................................. 408
PLATE 23: COMMERCIAL CLAY AND BROOCH IMPRINT WITH SPRUES, AND KEYS CUT OUT WITH A KNIFE ................................................................. 408
PLATE 24: BUILDING OF THE FIRE PIT FOR “PRIMITIVE FIRING” OF THE CLAY MOULDS ................................................................. 410
PLATE 25: A PRELIMINARY FIRE IS MADE ................................................................. 411
PLATE 26: THE FIRE IS LET TO DIE OUT SO THAT HOT COALS REMAIN ................................................................. 411
PLATE 27: THE COALS ARE PUSHED ASIDE AND THE MOULDS PLACED ON SEVERAL PLANKS OF WOOD ................................................................. 412
PLATE 28: ASHES AND CLAY MOULDS REMAINING IN THE PIT ................................................................. 413
PLATE 29: FIRED CLAY MOULD IN THE ASHES AFTER 15 HOURS OF FIRING ................................................................. 414
PLATE 30: RECOVERED MOULDS FROM THE FIRING ................................................................. 414
PLATE 31: POURING MOLTEN BRONZE INTO THE MOULD ................................................................. 416

15
PLATE 34: Mould immediately after casting.......................... 417
PLATE 35: Breaking the clay mould after casting....................... 417
PLATE 36: Kiln where mould sample 6 was heated..................... 418
PLATE 37: Cast brooch from mould sample 1.......................... 419
PLATE 38: Brooch cast from North Shore clay with admixture of 40% sand and 20% peat. .......................................................... 419
ACKNOWLEDGEMENTS

The following PhD thesis could not have been carried out without the generous support and guidance from the following people and Institutions. Errors or misunderstandings that are contained in this thesis are my own.

Financial support for this thesis was granted by scholarships from Glasgow University's Postgraduate Scholarships and the Overseas Research Award. The Viking Society for Northern Research kindly awarded me in the fall of 1999 the amount of four hundred pounds from the Viking Society Development Fund to travel to Copenhagen. An additional one hundred pounds was awarded to me from the James McNeil and Beatrix Whistler foundation for the same purpose.

My deepest gratitude goes out to my supervisors, Dr. Colleen E. Batey from Glasgow University and the Glasgow Museums, Prof. Christopher D. Morris from the University of Glasgow as well as Mr. Roger Millar Head of the Department of Silversmithing from the Glasgow School of Art. I cannot begin to express my recognition for their continuous support and feedback throughout my research.

I am equally in dept to the Institute of Archaeology of Iceland (and staff), more particularly to Adolf Friðriksson a friend and colleague who first introduced me to Icelandic archaeology and made it possible for me to access the jewellery data-sets by arranging the drawing contract for Kuml of Haugfé. Mjöll Snæsdóttir, a dear friend, without whose constant support and help I could not have done without, and who also spend endless nights translating Icelandic texts for me, and put me up when ever I was in Iceland. Orri Vesteinsson who was the key person who involved me in the Hofstaðir
field school in 1997. Helgi Bragason who photographed the material from Reykjavík for me which is depicted in this thesis.

I wish to thank the National Museum of Iceland along with its staff, Þór Magnússon, Lilja Arnadóttir whose help with accessing collections was tremendous and who did all she could to provide me with material to work with. Guðni Gerður, Halldóra Ásgeirsdóttir who also aided me on countless occasions with finding material to draw, and Anna Lísa Guðmundsdóttir from Arbaersafn.

From the National Museum of Denmark, Jette Arneborg, and particularly Lars Jørgenssen who assisted me with the Icelandic material in Copenhagen and helped in translating the museum ledgers. From the National Museum of Scotland, I am grateful to Trevor Cowie who helped me accessing Scottish collections, Fraser Hunter for his contributions with the jet. Thanks to Joe Cherry from the Glasgow Museums for his help with the moulds. Jeremy Hugget, and Steve Driscoll from Glasgow University, Laureat Moreau from the Musée du Shaputuan for his help with the primitive firing, and thanks to Virtual Logistics Inc. Canada for their help with computing matters. I would also like to thank Dr. Shepard Krech III from the Department of Anthropology of Brown University for his support.

More general thanks to Céline Nowenstien for her advice about Iceland, and for sharing with me her Master's thesis, Hildur Gestsdóttir for her insightful comments on the skeletal material, Elín Heiðarsdóttir for her help with Icelandic translations and her observations on beads, Katinka Stendhof for her friendship and putting me up in Copenhagen, Emmanuelle Tulle for her friendship, support, and being there as the only other francophone in Glasgow. Thanks to all my friends in Glasgow that I have known over these three years and that made the experience worth while.
Deepest love and affection to Arthur Y. Smith, my father, for his support and encouragement, Kevin P. Smith for his love, help and encouragement and believing that I had something to say about jewellery and its social use in early Iceland; Émilie Marriette Wilder Smith, my daughter; my brother Robin H. Smith, Bernie Martenson, James Alexander Smith, John Andrew Smith; and to my friends Nadia Ferrara who encouraged me and helped me through every stage of this process. Last but not least, Zoe and Joe for their unconditional love.
CHAPTER 1

Introduction

"L'histoire, d'un peuple peut être décrite de mille et une façons: par l'épée, par la plume, par les légendes... Celles que nous contient les objets traditionnels n'est pas moins suggestive. Muets en apparence, ils dévoilent, à ceux qui savent les lire et les entendre, le passé d'un pays et l'histoire de son peuple, avec ses traditions, son mode de vie et ses croyances. A ce titre le bijou est un object de prédilection car il est l'objet-témoin par excellence" (Kadra in Benfoughal, 1996: 9)1.

My experience with jewellery and adornment began when I realised the intimate connection between my body and these supplementary objects. I could add items of jewellery to my person and thereby change the messages I wanted to convey about myself. Throughout this research it became increasingly clear to me that the connection had to do with the body and its intentional manipulation as well as issues of personal and group identity. Jewellery may offer information about a person's society, his/her social status, a particular subgroup he/she may belong to, his/her magical and religious beliefs and affiliations etc. On a socio-cultural level these same visual clues contained in the various elements of adornment convey information to other social groups. They can become distinguishing characteristics of cultural identity to neighbouring communities. Jewellery and adornment are therefore part of an array of mechanisms and metaphors used to mark issues of socio-cultural identity.

1 "The history of a people can be described in a thousand and one ways: by the sword, the pen, by legends... but the story told by traditional objects is no less revealing. Silent in appearance they disclose to those who know how to read and hear them, the past of a country, the history of its people, their traditions, life-styles, and beliefs. At this level jewellery is the item of choice, because jewellery is the ultimate "object-witness"" (translated by M. Hayeur Smith; Kadra, 1992: 9).
Jewellery has often been overlooked by past scholarship. In the fields of anthropology and archaeology, jewellery was frequently perceived as a minor detail of adornment. For this reason the study of jewellery has often been limited to typological studies, compilations and catalogues of styles of jewellery and techniques with little attempt made to understand the deeper social dynamics symbolised by these objects. Dress, similarly underexploited, was treated no differently. Anthropology did overcome some of these limitations, but far more effort has been directed towards the study of kinship, power, magic etc, and the language of clothing and adornment has frequently been ignored (Schwarz, 1979: 24). But how can these disciplines neglect something so fundamental? As pointed out by Schwarz, we are all born naked, yet we depart this world fully clothed (Schwarz, 1979: 24).

The aims and objectives of the research

Viking studies have, until recently, also been guilty of neglecting these social concerns and the symbolic meaning of jewellery. In the discipline, one can find formidable catalogues and typological studies that are in themselves useful but ultimately they do not always tell us much about Viking society. It would be of interest to the scholarly community if typological studies or descriptive works were complimented with a more social and cultural outlook, thus adding to a better understanding of the various aspects of Viking society. Adding an anthropological angle to the study of jewellery would be an asset to the discipline as it would contributed to a better understanding of how an element of material culture circulated and influenced certain internal social dynamics of the society under scrutiny.

Within the Viking world I have chosen a region which is self-contained: Iceland (by self contained I mean that Iceland, by the simple fact of its geographic location and being and island, could be regarded as a microcosm
of the larger Viking world). This island in the North Atlantic, was settled largely by people of a Scandinavian cultural background and yet it is not Scandinavia. The social setting of Iceland is that of a colony displaying some of the idiosyncrasies that frequently characterise this type of social setting. The jewellery from this island that I am interested in dates to its early years of settlement from AD 870 to AD1000, a time span which includes the traditional historical divisions of the "landnám" (870-930 AD) and "early commonwealth" (930-1264) periods.

It has been argued that archaeology in Iceland has, until recently, focused on retrieving objects and structures as a means to demonstrate what was described in the saga literature (Vésteinsson, 1998: 2). Researchers have therefore, invested effort into debating the chronology of the settlement rather than looking into the process of colonisation (Smith, 1995: 319). Not unlike the rest of Viking studies, Icelandic archaeology of this period has been concerned with asking questions such as "when"? and "where from"? rather than asking "why", and "how"? (Vésteinsson, 1998: 5). Vésteinsson argued that a desperate need is felt to go beyond this approach, and as long as research fails to address these questions knowledge of early Icelandic society will continue to be incomplete (ibid.). He felt that it was well overdue that scholars start looking at older data-sets and submit them to new ideas and discussion.

The scope of this thesis is Viking jewellery from Iceland, an older data-set stemming predominantly from burials. I am proposing, therefore, to look at the jewellery from burial contexts and subject it to a different line of reasoning. I am proposing to explore jewellery as a symbol, offering information about social perceptions and cultural attitudes about the various aspects that adornment encompasses. Furthermore, jewellery itself, by its very nature and association with dress and adornment, reveals to us issues of social and cultural identity of a given society. Identity as we will see in
subsequent chapters is a multifaceted sentiment touching upon as diverse elements as gender, status, religious belief and affiliation, group belonging and cultural affinity. Therefore, this older data set has the potential of offering first hand evidence of certain of these dimension of identity: How did people perceive gender and gender roles? How were women and men perceived and treated? What sorts of tasks were ideologically linked to each gender? How did the settlers perceive status and social distinction if certain groups and social categories were identified by visual external clues? Of course most of the observations made in this thesis on these various interrogations will reflect attitudes in death rather than in life, as it is not the dead that bury themselves but the living. This is an imminent concern to all those working with funerary remains.

By the same token I will not limit myself to the social study by dismissing former research done on Viking jewellery. Former research in this field provides the groundwork for the social analysis. It offers a reference point as well as means of dialogue and communication between scholars. It will enable me to document the jewellery from Iceland, describe the corpus I have recorded, and place it into a geographical sequence. The geographical characteristics will enable me to identify the provenance of the jewellery within Iceland and more importantly identify its origin from within the Viking world, as almost all the jewellery was imported from elsewhere.

The chronological sequence is harder to establish due to do the uneven quality of the data available from Iceland. Iceland’s archaeological record has not, until the appearance of tephrachronology (dating using layers of volcanic ash), been subjected to rigorous scientific dating techniques. Although a few burials such as Hrifunes (Gestsson 1984) were dated using tephrachronology, more often there are no dates and poorly documented archaeological contexts for the sites in which the jewellery was found. This is largely due to early excavations conducted in the late 1800s and early 1900s.
when excavation techniques were not up to the standards they are today. Therefore, extensive geographical and chronological comparisons within Iceland will not figure in this research.

My study will not end with these aspects, and as a researcher with a background in jewellery making I thought it would be of relevance to bring in some of this practical knowledge to the study of Icelandic jewellery. I have therefore, dedicated a small portion of this research to technological experiments on Viking period mould making and casting methods in an attempt to supplement and resolve a long drawn debate: was jewellery locally produced in the new colony and if so on what scale? However, these practical concerns of metal working are not limited to the Appendix they are apparent throughout: through the evaluation of quality of craftsmanship; through the discussion of metal working techniques and metals and more importantly in the last chapter in the review of Icelandic sites where evidence for the working of non ferrous metals may have been previously overlooked. Without this technical understanding many of these aspects of the thesis would have been impossible.

The thesis is organised in the following manner. This chapter offers a historical overview of early Iceland in order to situate the reader, and chapter 2 provides a history of research on Viking jewellery over the past two centuries. Chapter 3 offers the theoretical framework for the dissertation, explaining how adornment and body theory can be applied to the Norse context. Chapter 4 describes the research methodology, the recording of data as well as the organisation of the relational database. Chapter 5 a descriptive chapter, attempts to offer archaeological information about the material: its geographical provenance within Iceland as well as its provenance throughout the Viking world. When possible and available its chronological characteristics are also offered. In this chapter reference is made to the early typological studies done on jewellery by past researchers.
Chapter 6 is the first interpretative chapter and is divided into three parts covering three main areas where jewellery prevails in a social environment: gender roles, status behaviour, and religious/magical behaviour. Chapter 7 offers the second portion of my interpretation of jewellery focusing more on technological details in the Icelandic corpus. Some of these technological elements, such as materials and craftsmanship, have repercussions on the manipulation of social status within society. The metal working techniques used in the making of Icelandic jewellery are also considered, introducing, in the latter part of this chapter, the debate concerning whether locally produced jewellery in Iceland exists with a look at supporting archaeological evidence. I have placed the technological experiments on the metal casting techniques of oval brooches, conducted at the Glasgow School of Art, at the end of the dissertation as an Appendix (A). This portion of the thesis has no direct bearing on the Icelandic social context but as noted above, proved invaluable for understanding the processes involved in casting jewellery, and assessing whether or not these techniques could have been applied in this colony. In Appendix (B) the reader will find a summary of the archaeological data used in this study. This Appendix was arranged to offer as much from my research as was realistically possible in printed form, though not all aspects of the database are depicted in this table.

Throughout the analysis comparisons are made to the sagas. They are not used as indisputable facts, nor are they perceived as symbolic representations of people's mind set in the Viking period. Much like other researchers, such as Durrenburger (1992), Byock (1982, 1993), Samson (1991) and William Miller (1990) before me, they are viewed as comparative sources ethnographic details with or without worth, to be compared and contrasted to the results from the archaeological data. The reader will also notice that reference is made to other regions of the North Atlantic, in an attempt to place this material into a larger North Atlantic framework.
The historical, political, social and geographical setting of early Iceland

The geography and landscape of Iceland

Iceland is an island in the North Atlantic situated between 13° 20’- 24° 32’ west and 63° 24’ and 66° 32’ north, with a total surface measuring 103,000km² (Sveinbjarnardóttir, 1992: 4; Hjálmarsson, 1993: 6). The island sits upon the mid-Atlantic ridge and is characterised by intense volcanic activity. It is said to be one of the most active volcanic areas on earth (Hjálmarsson, 1993: 6). The landscape is bleak and inhospitable with a large central portion of the country covered in an arctic desert and glaciers (Sveinbjarnardóttir, 1992: 4). This is in part the result of the distance to the surrounding ocean that is warmed by the northern branch of the Gulf Stream (Byock, 1988: 10; Sveinbjarnardóttir, 1992: 4). It renders the central portion of the country uninhabitable forcing people to occupy the limited coastal regions (Byock, 1988:10).

Figure 1: Iceland in relation to Europe and Greenland (www.go.hrw.com/atlas/, 2001)
The environmental changes of Iceland's landscape

Based on environmental research carried out on Iceland's settlement period, it is said that the landscape was different from what it is today. It is estimated that the vegetation during the settlement period was twice as extensive as it is at the present (Sveinbjarnardóttir, 1992:4). Pollen analysis has indicated that birch was the dominant species during the landnám and that areas of the country which were 300-400 meters below sea level were covered in birch forest (Smith, 1995:323; Hallsdóttir 1996; Þórhallsdóttir, 1996 in Vésteinsson, 1998:7). Furthermore, what science has demonstrated in the past years, Ari fröði also noted:

“ At the time Iceland was covered with forests between mountains and seashore” (Hermansson, 1930:60).
Today these former wooded regions have been altered to heathlands, eroded gravel plains, and grasslands (Smith, 1995: 323). Low-lying waterlogged regions of the landnáam would have been occupied by wetland fens accommodating a variety of grasses (ibid.).

The deforestation of Iceland and the current change in the landscape of the North Atlantic in general has been a topic of recent research in environmental archaeology. Hallsdóttir (1987) dedicated research to the study of pollens and the impact humans had on the Icelandic landscape. Buckland and Dugmore (1991) presented two models explaining the origins of Icelandic biota, one addressing the possibility of postglacial colonisation, the other suggesting survival in situ. In 1991, Buckland, Sadler and Dugmore looked at the insect fauna for Iceland extending back over much of the Holocene and allowing current research to map and assess changes in species over a given time period. This in turn reflects directly upon human activity and the impact humans had on the environment as a whole. Buckland, Sadler and Smith (1995) demonstrated how the use of invertebrate remains on archaeological sites could aid in comprehending and addressing questions of human settlement, exploitation, and land degradation in early Iceland. McGovern (1988), Amorosi (1989), McGovern, Perdikaris, and Tinsley (2000) from NABO (North Atlantic Bicultural Organisation) have focused on animal bones on Icelandic sites to address similar concerns.

According to Sveinbjarnardóttir (1992) the most favoured explanation attributes change to human exploitation, activity and settlement (Sveinbjarnardóttir, 1992: 4). Others have attributed the deforestation to a combination of factors; notably the onset of the Little Ice Age and climatic cooling aggravated by overgrazing, human choices and decisions regarding possible inappropriate farming strategies, all of which may have contributed

The settlement, its beginning and dating in Icelandic archaeology


Iceland is unique in that it offers a body of written documents recorded after the end of the Viking period but documenting its settlement and the arrival of the Norse. The Islendingabók² (The Book of the Icelanders) recounts the major events in Icelandic history from the time of settlement till roughly 1133 AD. The Landnámabók³ (The Book of the Settlement) describes the history of the settlement of Iceland, offering the names and land claims of early settlers (Sveinbjarnardóttir, 1992: 5; Friðriksson, 1994: 36-37). According to Sveinbjarnardóttir (1992) the geographical knowledge in these sources is good and offers details and information about 540 farms of the settlement period (Sveinbjarnardóttir, 1992: 10).

Until recently, most historical and archaeological research in Iceland has been dominated by the literary sources and the details contained in them were seen as indisputable facts. Archaeology, for example, was concerned with trying to identify the remains of settlers or locating their farms and sites described in the sources (Friðriksson, 1994: 39, Vésteinsson, 1998:1-2). While much of this research has been discredited and appears antiquated by

² Islendingabók edited and translated by Halldór Hermannsson (1930).
³ Landnámabók, translated by Hermann Pálsson and Paul Edwards (1972)
today's standards, current archaeological research continues to support the evidence of the sagas stating that Iceland was settled around 871 AD (Vésteinsson, 1998:2).

The settlement of Iceland or landnám (land taking) extends from 870-930 AD (Smith, 1995: 319). It has become an accepted chronological period in Icelandic history frequently labelled as "Icelandic prehistory" (Friðriksson, 1994: 37). The end of this phase is characterised by the creation of the Althing in AD 930, and marking the beginning of the subsequent period: the Icelandic Commonwealth. The Althing was made up of approximately 36 chieftains who would meet annually during the month of June at Pingvellir in southwestern Iceland accompanied by their thingmen (bædur). A major function of the Althing was to settle differences, review old laws, devise new ones and negotiate power (Byock, 1988: 61). According to Byock the Althing had its roots in Scandinavia, and was the system of meetings in the Old Scandinavian/Germanic social order (Byock, 1988: 34). What the Icelanders did with the Althing was, in effect, to extend these meetings to a national level and create a governmental system without overlords, or kings (ibid.). This same author has argued that it was the lack of a political structure and an increase in the population that lay behind the creation of the Althing.

"With the steady increase in the population, the colonists more frequently came into contact with one another, and the lack of a common law must have created serious problems" (Byock, 1988: 57).

Attempts were carried out to date the settlement or landnám period prior to AD871. Particularly controversial was the research by Hermans-Auðardóttir at the site of Herjólfsdalur in the Westman Islands carried out between 1971 and 1983 (Hermans-Auðardóttir, 1991: 2;Friðriksson, 1994: 41; Smith, 1995:324). Hermans-Auðardóttir, challenged the accepted date. Based on the finds from Herjolfsdalur and artefact typology combined with radiocarbon
dating, this author argued for an early 7th century occupation extending to the 11th century (Hermans- Auðardóttir, 1991: 2):

"The settlement at Herjólfsdalur extends back to the Merovingian Period of the 7th and 8th centuries. The occupancy of Herjólfsdalur continued until the latter half of end of the Viking Period i.e. until the late 10th or 11th century" (Hermans- Auðardóttir, 1991: 4).

Hermans- Auðardóttir's evidence and conclusions have since been questioned, and several comments and criticism by the archaeological community were published in the Norwegian Archaeological Review (1991). Overall, it was said that most of the dates obtained were carried out on samples of birchwood to avoid problems of dating wood from unknown provenance, such as driftwood (Hallsdóttir, 1982 in Smith, 1995: 325)

However, birch is a variety which has not grown on the Westman Islands for 5000 years indicating that all samples were of non-local in origin despite the precautions taken (Friðriksson, 1994: 43; Smith, 1995: 325;). Smith also pointed out another discrepancy in Hermans- Auðardóttir's samples:

"Palynological studies suggest that wood from peat beds on the adjacent mainland may have been one source of fuel for Herjólfsdalur's settlers (Páhlsson 1981; Hallsdóttir, 1987). The birch stratum in these peat beds date to the fifth through tenth centuries AD (Haraldsson 1981; Stuiver and Pearson 1993). Currents may also have brought birch from mainland Iceland to Heimaey also with non indigenous taxa" (Smith, 1995: 325).

**Tephrachronology**

Dating methods and the dating of the Icelandic archaeological record has been another issue of debate. At the present time the most accurate method of dating has been by tephrachronology, a technique preferred over C14 dating and thought to be more reliable in such a volcanic environment (Vilhjálmssson, 1990: 49). The pioneer of this dating technique was Sigurður Þórðarinnson (1970) (Hermans- Auðardóttir, 1991: 2). Using the geological and occupational deposits through the study of volcanic ash that settles over the landscape during volcanic eruptions dating can be achieved. (Þórðarinnson, 1970:296-298; Vilhjálmssson, 1990:44; Smith, 1995: 326;
Vésteinsson, 1998: 2). By mapping these layers absolute dates can be assigned to strata containing the tephras, which can then subsequently be compared with settlement layers to establish relative chronologies within and between sites (Þórarinsson, 1970: 298; Vésteinsson, 1998: 2).

"If one uses a widely distributed tephra layer as a chronological key bed, various kinds of human remains such as pottery, tools, farm sites etc., that are situated just below or above such as layer can be treated as being of approximately the same age even if the artefacts are spaced far apart from one another laterally." (Þórarinsson 1970: 298).

The most important ash layer for dating the settlement of Iceland is a landnám-tephra, found over most of Iceland to the exception of the Western region and is dated to 871 AD (Vésteinsson, 1998: 3). This date is further confirmed by the study of ice-cores from the Greenland ice-caps where traces of the landnám-tephra have been identified (Smith, 1995: 326; Vésteinsson, 1998: 3). Therefore to quote Vésteinsson:

"There can as a result be no doubt any more regarding the date of the landnám-tephra and any claim for human habitation in Iceland predating 871 must therefore be based on finding actual human deposits underneath this layer." (ibid.)

The origins of the people

Scandinavia

The Islendingabók states that settlers came from Norway "until king Harald forbade it" (Hermannsson, 1930:60). Western and southwestern Norway have been identified as the place of origin of Icelanders particularly Sogn, Hordaland, and Rogaland (Jones, 1986:44; Vésteinsson, 1998: 4). According to Byock they fled due to the growing power of King Harald Finehair who was attempting to subjugate local leaders, free farmers, and petty kings to his authority in order to claim rulership over all of Norway (Byock, 1988: 53).
When they arrived in Iceland the Norwegian settlers encountered no indigenous populations with whom to compete for resources (Byock, 1988: 2). Humans or livestock had never settled this pristine arctic landscape in any organised fashion. However, based on the *Islendingabók* and the *Landnámabók* the country may have been inhabited by the *papar*, believed to be Irish hermits, when the Norse arrived (Smith, 1995: 320). “The Christian men whom the Norsemen call Popes were there; but afterwards they went away, because they did not wish to live there together with heathen men, and they left behind Irish books, bells and crooks. From this could be seen that they were Irishmen” (Hermannsson, 1930: 60).

While archaeology has attempted to document the presence of these *papar* the results have been, so far, inconclusive. (Sigurðsson, 1998; Jakobsen, 1988 in Vésteinsson, 1998: 4).

Despite its apparent large size and lack of indigenous population the task of the newcomers was to create a society on an empty island. This situation enabled the Norse to settle wherever they wanted claiming huge portions of land (Byock, 1988: 55). After 871 AD the process of settlement itself is said to have gone rapidly with people settling all habitable regions of the country by the first half of the 10th century (Vésteinsson, 1998: 4).

**The Celtic component of the population**

It has long been acknowledged that not all settlers of Iceland were from Norway, though the dominant culture was distinctly "Scandinavian". The language, religion, and social organisation of this chieftain-based society were similar to the Scandinavian homeland. However, many settlers are said to have come from the British Isles, either from Norway via the British Isles, or directly from the British Isles (Jones, 1986: 49; Sveinbjarnardóttir, 1992: 5). Crawford (1987) argued that the Icelandic sources make continuous reference to men and women from the Hebrides and Ireland.
Jones (1986) identified different types of settlers from the British Isles: those of mixed Norse-Celtic descent (resulting from Viking settlers in Scotland or Ireland who intermarried with the local population and subsequently emigrated to Iceland); and the large number of Irish slaves brought over during the settlement of the country (Jones, 1986: 49-50, Karras, 1988: 49). Karras argued that the Celtic component came from various regions of the United Kingdom (Orkney, Shetland, Hebrides, Caithness) as well as the Faroe Islands and Ireland (Karras, 1988: 49). Kristjánsson, using the literary sources, estimated the number of settlers from the British Isles at 20% (Kristjánsson, 1998: 265).

Place name evidence in Iceland, according to Vésteinsson, testifies to this interaction between Norse and Celtic peoples though he felt that this interaction took root prior to the settlement of Iceland (Vésteinsson, 1998: 4). Vésteinsson argued that on-going contact between Iceland, Ireland, and Scotland was rare after the settlement and the Icelanders turned to Scandinavia and Scandinavian colonies such as Orkney for trade and cultural and political contacts (ibid.). This might explain the dominant Scandinavian cultural component in this settlement; perhaps because it sat more comfortably with the cultural identity people were aspiring to.

Earlier attempts were made to demonstrate the Celtic element in the population through the verification of blood groups types of modern Icelanders. It was demonstrated that blood group types of Iceland were similar to that of Scots and Irish (Sveinbjarnardóttir, 1992: 5). However it was further demonstrated that such studies had little bearing on the actual original settlers as blood groups are subject to modification of the gene pool resulting from small pox epidemics of which there were several in Iceland (Ádalsteinsson, 1985a & 1985b in Sveinbjarnardottir, 1992: 5).
Recent work in the field of genetics has also attempted to clarify the genetic makeup of the modern Icelandic population and correlate this with the population’s history. Iceland has not undergone any degree of significant immigration since its settlement (Karras, 1988: 49). Research was carried out by sampling and generating mitochondrial sequence data of 401 Icelanders offering information on the possible origins of the women who participated in Iceland’s settlement (Helgason et al., 2000: 999). Mitochondrial DNA can only be transmitted in females and can therefore only offer information on female members of the population involved in the settlement (Helgason, et al., 2000: 1013). Compared with mitochondrial lineages from other regions of Europe, Iceland’s founding females did indeed, most likely, originate from Scandinavia and the British Isles as well as other population groups though to a lesser degree (Helgason et al., 2000: 999).

These multivariate analyses continue to support a predominance of Norse settlers although the Celtic component is present. Perhaps more reflective of the cultural make up of Iceland is the archaeology and more specifically burials which offer a direct glimpse into the social reality of the time. As will be addressed later on in this thesis, these different cultural groups were, in effect, sharing the resources of a limited area.

Settlement patterns and subsistence

It is said that the early Icelanders practised a seafaring and subsistence economy, based on domestic animals (sheep, cattle, goat, pig, dogs, and horses) (McGovern et al., 1988: 227). They practised cereal cultivation of essentially barley and exploited natural wild resources from both the sea and the land (ibid.). It has been demonstrated through the analysis of faunal remains that during the landnám more reliance was placed on cattle rather
than sheep, while later periods this pattern was reversed (Amorosi, 1989; Sveinbjarnardóttir, 1992: 9; Smith, 1995: 329).

It has generally been accepted that Iceland's settlement was characterised by independent self-sufficient farmsteads as well as single family units (Vésteinsson, 1998:12; Smith & Hayeur Smith, 2001: 8). Even recently, Pálsson, (1999) argued that individual farmsteads were self-sufficient economic units resulting in a rural society with no towns, no villages, no cities, with people living on farms and crofts (Pálsson, 1999: 68). This model is proving increasingly unsatisfactory, and is said to have its roots in the 19th century scholarship (Vésteinsson, 1998: 12). Kevin Smith is currently developing an alternative to the view of Icelandic households as independent units (in preparation). In brief, this model considers that an exchange network existed, contradicting the independent household model and suggesting a more complex pattern of economic exchange⁴.

Jón Johannesson (1974) argued along the lines of the independent household model and stated that every farm was equipped with a smithy, implying that some members of every household knew the techniques of smithing. (Smith and Hayeur Smith, 2001: 4) An initial, and partial formulation of the alternative network was presented in Smith and Hayeur Smith (2001) and focused specifically on the integration of ferrous and non-ferrous metalworking into the more general 'network household model' of the medieval Icelandic economy. Through an analysis of early metal working activities of ferrous and non-ferrous metals in Iceland, and the reviewing of older data-sets, it has been demonstrated that a network model may have been more likely with the technical skills of metal working unevenly distributed across the landscape. Such a model would imply that settlers might have exchanged skills and products supporting more complex economic structures than formally suggested (Smith and Hayeur Smith, 2001: 9).
Vésteinsson argued along similar lines of a more complex settlement pattern than the independent household model. According to this author the earliest settlers chose the most advantageous and rich agricultural lands which lent themselves well to animal husbandry (Sveinbjarnardóttir, 1992: 16; Vésteinsson, 1998:8). This is supported by early settlements such as Herjólfsdalur which display larger quantities of cattle bones over sheep bones compared to later sites (Amorosi & McGovern, 1994 in Vésteinsson, 1998: 7). These areas were wetland regions, where species of grass and sedge grow and are ideal for dairy cows (Vésteinsson, 1998: 7-8). Furthermore, these same wetland regions were not covered in forest and offered greater pastureland for grazing. They were close to the coast or on estuaries of large rivers (ibid.). Vésteinsson argued that early farms were settled in these regions and the subsequent later wealthy estates were located on top of early settlements (ibid.).

Vésteinsson demonstrated by looking at several early farm sites that the settlers of the landnám did not live as single family units but rather sailed to Iceland as more than one family and stayed together (Vésteinsson, 1998: 12). The sites of Herjólfsdalur, Hvítárholt, Reykjavík, Bessastaðir, Goðataettur and Granastaðir are given as example offering possible evidence of more than one long house either side by side or in close proximity to each other (Vésteinsson, 1998:14). This author pointed out that this pattern of settlement was to facilitate economic co-operation and was also observed at l’Anse aux Meadows where three longhouses were found on the site (Vésteinsson, 1998:16). It is likely that people in the early stages of settlement, where the territory is unknown and conditions harsh, might want to stick together in order to enhance their chances of survival. Smith (1995) suggested with reference to the variability of Icelandic architectural, faunal and artefact assemblages, that the landnám may have witnessed a

---

4 I am grateful to Kevin Smith for allowing me to utilise his unpublished research.
period of experimentation by the colonists which was later replaced by more stable adaptive patterns which became widespread throughout the Scandinavian settlements of the North Atlantic (Smith, 1995:331).

Vésteinsson therefore, envisaged the early settlement patterns in the following manner: early colonists settled the most advantageous agricultural land suitable for animal husbandry resulting in large estates at the end of the landnám. Furthermore, according to this author they were not living as single family units (Vésteinsson, 2000:168). The later farms or estates were said to consist of one large farm unit, as well as surrounding cottages whose inhabitants were economically dependent on the main farm, and finally small holdings on the periphery of the estate (Vésteinsson, 1998: 19). These small holdings were thought to be independent, they could be bought and sold but their tenants were politically and economically dependent on the landowner (ibid.).

It is generally thought that the settlement occurred in more than one phase, resulting in a later wave of colonist arriving in Iceland finding there to be a shortage of land. Byock stated that this resulted in disputes between earlier and later settlers (Byock, 1988:55). Vésteinsson, attributed to later arrivals, the appearance of medium size to large single farms surrounding the main estates (Vésteinsson, 1998: 20). Furthermore, the non-wetland areas and regions covered in forest are, in turn, characterised by small to medium farms with all roughly the same access to resources (ibid.). For this author these regions can be defined as planned settlements, set up, sold and run by large landowners who had made huge claims earlier on (Vésteinsson, 1998: 21). By keeping these settlements relatively small the landowner was, by the same token, maintaining political and economical authority over specific areas (ibid.).
As a mechanism for dating these sites and determining which ones were from which wave of settlement, Vésteinsson suggested using the pre-Christian burials of Iceland. Pre-Christian burials were generally established outside the home fields of farms. Therefore, the presence of chapels and Christian cemeteries at farms built over pre-Christian burials lead Vésteinsson to suggest that the original farm had been established earlier on, while farms without such features point towards later arrivals (Vésteinsson, 1998: 23).

Vésteinsson has presented this hypothesis of settlement patterns in various articles (1998, 2000). This hypothesis derives from observations and preparations made during a long-term research project involving land use and territorial divisions in medieval Iceland (Vésteinsson, 1998: 5). Research in this field is still largely underdeveloped. The excavation records and systematic surveys are incomplete.

However, Vésteinsson was not the first to suggest a settlement pattern approach or the need for in-depth archaeological research to be conducted at the regional level. Smith and Parson (1989) argued in favour of a regional focus looking at the regional distribution and patterning of wealth and economic as well as political power using a multidisciplinary approach (Smith and Parsons, 1989: 194-196). This would include anthropological models, ethnohistorical research, as well as archaeological surveying (ibid.).

The Landnámaabók also offers ample evidence that more than one wave of settlement took place, and that the earlier colonist acquired great portions of land. Some such as Skallagrím, a large landowner in western Iceland, is said to have subdivided some of his land either giving as gifts to family members or selling it off to later arrivals:

"No. 30: Skallagrím:
He built a farm near the creek where Kveld-Ulf's coffin had come ashore and called it Borg and fjord Borgarfjörð. After that he granted land to his companions and later plenty of others came to settle on his territory with his approval." (Pálsson and Edwards, 1972: 28)

Further on, one reads the following about Skallagríms farm:

"No. 58 Sigmund: To one of his freedmen, Sigmund, Skalla-Grim granted land between Gljufur and Nord rivers. Sigmund farmed first at Haugar, then moved house to Munadarness. Sigmundarness takes its name after him." (Pálsson and Edwards 1972: 36)

"No. 59, Ore-Bjorn: Ore-Bjorn bought land from Skalla-Grim between Gljufur and Gufu Rivers, and lived at Rauðabjarnarstead above Eskiholt..." (ibid.).

Smith (1995) discussed the Sturlubók version of Landnámabók, as well as Egil's saga description of Skallagrím's land and estate. Skallagrím, is said to have had his own slaves and household labourers farm his land thus providing the resources necessary to maintain his status and power (Smith, 1995: 321). Skallagrím distributed portions of land to his kinsmen and freed slaves, while later arrivals had to purchase or be granted land (ibid.) Thus, according to this author smaller farms were settled around the main farmstead, on one hand filling up the landscape, and on the other hand transforming this estate into the political centre for a chiefly dynasty, which retained political control over the portion of land which Skallagrím claimed as first settler (ibid.). Vésteinsson's model, therefore, fits Smith's observations of 1995 as well as those described in the earlier historical sources.

Smith (1995) also looked at site distribution from the 9th and 10th centuries based on radiocarbon dating and tephrochronology for evidence of land use affecting the environment. According to his analysis, 9th century sites (including, burials, farms, iron-production sites) are situated throughout the coastal and interior regions of southern Iceland. The coastal areas offer evidence for residential sites while the interior and inner fjord areas represent areas of iron production or deforestation (Smith, 1995: 328). Sites from the
10th century appear to be more numerous and documenting the spread of permanent settlements well into the interior (ibid.) The former late 9th century iron production or clearance areas became farmsteads, and iron production as well as clearance altered to the fringes of the 10th century settlement sites (ibid.). Smith addressed the absence of early sites in the Northern and Eastern Iceland, and attributed it to a lack of research carried out in these regions (ibid.).

Like Smith (1995) and Vésteinsson (1998, 2000), Byock (1988) also described similar settlement patterns noting that earlier settlers claimed huge portions of land, took over entire fjords and caused disputes with latecomers (Byock, 1988: 55). According to Byock the later settlers accused the early settlers of taking too much land and demanded that the king of Norway mediate (ibid.). Byock's theory differs slightly from that of Smith (1995) and Vésteinsson (1998) in that he argued for more homogenisation of the social structure over time (Byock, 1988: 56) while the latter argued that that élites maintained their élite status as landowners well into the medieval period. According to Byock, the original leading families lost their claims to authority over huge areas, as farms were divided into smaller units because of later arrivals, making it harder to differentiate between the original landowners and the rest (Byock, 1988: 56). This is another explanation as to why later on, farms appear to be more numerous and more evenly distributed. However, Byock does not take into account the different geographic regions discussed by both Smith (1995) and Vésteinsson (1998) or the variability that can exist between types of agricultural land. Furthermore, as suggested above, more in depth archaeological research and systematic surveying conducted over a longer time span is required, in order to document the changes in settlement patterns that took place from the beginning of the settlement to the end of the Commonwealth period.
Most research carried out on the settlement patterns of early Iceland do agree on one point: Icelandic society was a stratified society with an unequal distribution of resources. Furthermore, the settlement patterns suggest a complex social and political environment made up of people from various social settings and ranks interacting on very different levels. Based on the network model (Smith and Hayeur Smith 2001) and multiple family household model (Vésteinsson, 1998) of mutual help and exchange it is possible to argue that social relationships were not straightforward but complex. In the following section I have attempted to offer an overview of these different social categories discussed with regard to the Icelandic settlement pattern.

Social organisation, and social categories

The Rigspula, from the Poetic Edda, has frequently been used to state the different social components of Norse society. The god Heimdall sets out to establish the structures of human society and calls upon three households. In each household Heimdall visits he is offered hospitality and then sleeps between the host couple. Later a child is born to each the first being “Thrall”, said to be ugly of face (Larrington, 1996: 247-248). All of Thrall’s descendants are given names indicative of their occupation or physical appearance, “Stableboy”, “Stumpy” “Fatty” etc, and were said to put dung on fields, work with swine look after goats etc, from them are said to descend the “race of slaves” (ibid.) The child born of the second household was called “Farmer” and this child’s descendants were named smith, yeoman, etc and gave rise to all farmers (Larrington, 1996: 249). The child born to the last household was called “Lord” his hair was said to be blond and his complexion fair. His descendants gave rise to the upper echelons of Norse society.
In Iceland, a chieftain based society, there were no earls or lords as described in the *Rígsþula*. However, there were hereditary chieftains that may have been the equivalent to the earls of the poem. Iceland has been described by some as having a decentralised government and an absence of "institutionalised hierarchical structures" (Byock, 1988: 5). Broadly speaking Iceland had two social strata: farmers and slaves. Some scholars have identified five social divisions among free men: chieftains, *Bóndi* (landowners, and yeoman farmers), *Leiglendigar* (tenant farmers-crofters), *Búðseturmaðr* (shack-men or cottagers and farmhands), and slaves (McGovern *et al.*, 1988:260-261; Smith and Parsons, 1989: 181; Pálsson, 1999:68). These divisions fit well into the description of settlement patterns described above. Chieftain and wealthy farmers were undoubtedly responsible for the significant land claims made at the start of the settlement, with tenant farmers and cottagers dependent upon them both economically and politically. Added to this social dynamic were slaves. The following section addresses each one of these social components in an attempt to understand their role in early Icelandic society.

**Chieftains: Goði- chieftaincy: goðorð**

The Goðorð, chieftainship was usually inherited but it could also be purchased, shared, received as a gift. The Goðar were expected to hold feasts, make loans, present gifts, extend hospitality to farmers as well as other chieftains and resolve or intervene with feuds (Byock, 1988: 6). Through these diverse activities chieftains were important players in the transfer of wealth and land (ibid.) The goðorð competed for status and their followers were drawn from among the farmer community (ibid.).

It is said that following the establishment of the *Althing* chieftains were divided into thirteen assembly districts each with three chieftainships and district assembly site (Smith and Parsons, 1989: 182). These assembly
districts were then incorporated into four quarters (ibid.). According to Smith and Parsons (1989) the goðorð were held to specific districts by law but were not granted control over that territorial unit (ibid.). Instead, it was:

"...a shifting nexus of political, negotiated alliances between a chieftain and those baendur who became his supporters of pingmenn through public oaths of allegiance" (Smith and Parsons, 1989: 182).

Jón Viðar Sigurðsson (1989, 1999) published two studies pertaining to the study of Icelandic chieftains. While focusing mostly on the development in the political structure of the 11th-13th century. He barely touched upon the Viking age/settlement period or the subsequent *Early Commonwealth* and therefore, it is difficult to describe his views on the the kinds of social control used by Icelandic chieftains. However, regarding this view of early land division after the foundation of the Althing, and based on data recorded from the Family Sagas, Sigurðsson rejected this more traditional notion, and argued for a need to abandon this “myth of creation”, associated with the Althing along with its structured system of 36 chieftains (Sigurðsson, 1999: 41). Instead he argued for a theory of development instead (ibid.).

The basis of a chieftain’s power lay with the free-farmer, as we will see below. The free-farmer or baendur were not required to support the chieftains in their home district but could pledge allegiance to chieftains in other districts of their quarter (ibid.). Free-farmers, therefore, actively supported and openly granted authority to a particular chieftain and it is said that dissatisfied farmers could retract this support (Byock, 1988: 6).

Chieftains had an additional task that differentiated them from the rest of the population; they also served as religious leaders (priest-chieftains) and were the keepers of the local religious gathering and hallowing local assemblies (Byock, 1988:59).

The political reality of chieftain-based societies has been the topic of research by several scholars, notably Peebles and Kus (1977), Carniero
Earle (1991), and Kristiansen (1991), who have attempted to define, and explain such political structures. Kristiansen, offered the hypothesis that chiefdoms were variants of a tribal societies whereby chiefs subjugate others to their power (Kristiansen, 1991:17). Carniero (1981) offered a model for the formation of states and more complex societies. In his model he reviewed the source of chieftain's power and how chieftains came to exist in the first place. His theory considers environmental factors as well as demographic increase as the causes responsible for the formation of chiefdoms. According to Carniero, chiefdoms constitute a stage in the formation of more complex political structures and arise in areas of circumscribed agricultural land. If population increase is accompanied by land shortage the outcome will be competition for resources and ultimately war or conflict. Those who loose through the outburst of conflict find themselves in a situation of political subordination vis-a-vis the victor (Carniero, 1981: 735) The subordination may involve the payment of tax or tribute of a kind as well as incorporation into the dominant political unit (ibid.). If land shortage continues to increase so does the competition and conflict. Rapidly one witnesses the subjugation of entire regions under the control of one powerful chiefdom (ibid.). Thus, from this ongoing process chiefdoms turn into kingdoms, and kingdoms turn into empires, and so on (Carniero, 1981: 736).

Carniero's model is partially applicable to the Icelandic context. If upon arrival the first settlers acquired most of the available agricultural land of which there was a limited amount, competition for land was bound to have taken place when others arrived later. If arable land became scarce competition would have arisen for this commodity. Under such stress, certain individuals skilled at political manoeuvring and possibly utilising force of a kind would have tried to subjugate others under their domination. Vésteinsson's (1996, 2000) model is similar to that of Carniero as he argued that in the diverse natural environments of Iceland chiefdoms did not develop in a homogenous fashion. Chiefdoms did not develop in fjord environments, but thrived in the
more arable plain regions (Vésteinsson, 1996: 302). This suggests that people did flock to areas of better land resources. Consequently, one witnesses in these areas the birth of stronger chiefdoms probably due to greater competition for resources.

Chieftains in Iceland may initially have claimed their status due to unequal access to resources, despite the fact that there may have been no state to ensure their ownership over the land. Furthermore, one must not overlook the fact that the settlers were arriving to Iceland with unequal status and wealth previously acquired and carried over from Scandinavia. Force of some sort may certainly used. Those who were able to impose and enforce their leadership over others would have attempted to consolidate their position by utilising other methods such as political manoeuvring, resolution of conflicts, and, of interest to a study of Icelandic jewellery, the control of wealth, and ultimately prestige goods.

On the issue of power and the control of prestige goods, an extensive article was written by Kristiansen (1991) concerning the chiefdoms of the Scandinavian Bronze and Iron Age. By looking at grave goods and hoards from these periods, Kristiansen traced patterns of leadership and cultural change. He partially based the emergence of chiefdoms and more complex political structures on the appearance and control of metal and metal goods. The reason for this is clear. At the end of the Neolithic when bronze replaced flint tools, metal items took over and became associated with prestige and wealth for reasons that will not be addressed here (Kristiansen, 1991: 29). At the onset of the Iron Age in Scandinavia, Kristiansen argued that a combination of population growth and reduction in agricultural land was responsible for the slow emergence of a chieftain élite (Kristiansen, 1991: 33). Once in place, this élite rapidly took control of taxation and external access of prestige goods and status information (Kristiansen, 1991: 35). What this implied was also the monopoly of information coming in from the
outside. During this period the author noted an increase in metal implements in graves and hoards (ibid.). Towards 400 AD, these chieftains were sufficiently consolidated in their power that the need to flaunt their wealth and military superiority in burials ceased. Instead, one witnessed a form of ritual gift-giving (Kristiansen, 1991:36). In the Bronze Age, a similar pattern occurred. Following the consolidation of power through the flaunting of personal wealth chieftains are said to have acquired their power by mediating with the gods, therefore, turning towards ideological control as a source of power (Kristiansen, 1991:38). In graves this was expressed through "ritual gear" such as gold drinking vessels etc. (Kristiansen, 1991:31).

In the Icelandic situation, if chieftains did indeed arise out of a competition for resources combined with population increase coming in from the outside, then it is only normal that in the consolidation of a chieftains' power, any and or all possible political mechanisms were at work to secure this power. The control over prestige goods (of which jewellery forms a part) is as good as any, but what this implies is that chieftains undoubtedly monopolised to a certain extent information and produce coming in from the outside. Trade includes the exchange of prestige objects and information, and with information comes the exchange of ideology. Furthermore, trade also suggests the control over docking and harbour places. If chieftains controlled docking areas as well as harbours this would have given them first rights over the acquisition of prestige goods as well as the control and distribution of these items in the consolidation of their status and power. With ideology this also takes on an interesting dimension particularly with the onset of Christianity as chieftains may have used this as another mechanism of self-promotion.

---

5 While this may have been the case once in Iceland, among the settlers there must have been some of greater wealth and status than others marking social differentiation between them before even setting foot on the island.
Byock touched upon the question of trade and chieftains in Iceland. He stated that chieftains had the right to set prices on the goods imported into Iceland as well as have first choice on imported goods, profitable in a society where gift-giving played an important role (Byock, 1988: 87-88).

**Free farmers-Bændur**

We have just established that chieftain depended largely on the support of freemen for their power and if dissatisfied could retract support to a given chieftain. In many respects the free farmers were the backbone of society (McGovern et al. 1988: 262).

Concerning their social and political organisation it is said that while the chieftains were organised into assembly districts, the free-farmers were structured at a local level into economic and political units called hreppar (Smith and Parsons, 1989: 182). It is said that the hreppar served to settle local disputes, organise communal labour co-ordinate tithe collection, among other things and were made up of approximately 20 or more independent farmers (ibid.). Smith and Parsons, argued that the hreppar may have appeared prior to the Commonwealth period, but were said to have become, with the onset of Christianity, units of tithe collection and church farms assembly centres (Smith and Parsons, 1989: 183).

As described above, within this social category there appears to have been varying strata of freemen, undoubtedly based on wealth and access to wealth or power. Below the bændur were the leiglendigar, or tenant farmers-crofters. They, in turn, had to pay rent to the bōndi for the use of land. The buðsetumaðr or shack-men, cottager-farmhand were also expected to pay rent to the bændur but in addition to this, were subjected to labour (McGovern et al. 1988: 260-261; Pálsson, 1999: 71). Some of these categories may have been freed slaves, and as we will see below some overlap exists between the two social groups. One can only imagine power
games and social complexities that probably took place within this same general social category.

**Slaves**

The question of slaves is an interesting one in the Icelandic context. It is a well known fact that the Scandinavians were active slave traders, and that a significant number of slaves brought to Iceland were of Irish or Scottish descent (Karras, 1988: 49). According to Karras (1988) in an extensive analysis on slavery across the Scandinavian world, stated that Norwegian Vikings frequently made voyages to raid the Irish and Scots in search of slaves (Karras, 1988: 49). In this same analysis Karras addresses the question of social perceptions and stereotypes of slaves in the written sources. Generally slaves were depicted in the Icelandic sources as nasty and ignoble people. Furthermore, she argued that in the saga literature these negative attributes were associated with "Irishness", but also adds that because they were perceived as foreign this did not necessarily mean that they were culturally different from the rest of the population (Karras, 1988: 57-58).

Such reactions are not uncommon in a new society where political and social hierarchies are being negotiated between settlers. If the aim was to preserve and cultivate images and culture of a "Scandinavian" heritage then anything pointing elsewhere could be considered inferior and threatening, far more so than had previously been the case where these people had come from. Furthermore, the slave status (and being unfree) as the lowest social strata, itself enhanced these stereotypes of inferiority and being Irish. Settlers in any new colony made up of more than one cultural group, and where intermarriage has taken place, will have to choose between various cultural components they are to affiliate with in order to distinguish themselves socially. If "Irishness" is equated to lower social strata then these are attributes that will be looked down upon. In this sense identity is a flexible
sentiment that will fluctuate and change in any new social environment. As argued by Kenny (1984) regarding the Spaniards in the New World:

"...the emigrant must select part of his cultural baggage from a variety of subcultural, local, regional, and national symbols and institutions which claim his loyalties. I see this selection in terms of a cultural "rag-bag" of Great and Little traditions..." (Kenny, 1984:20).

While Iceland was not as politically structured as were the colonies in the New World, certain of the same choices and dynamics occurred. As we will see further on in this thesis with regards to jewellery, while this cultural mix did not result in hybrid material culture created in Iceland, some of this occurred in the British Isles with certain items of jewellery.

The issue of slave perceptions and stereotypes introduces another interesting phenomenon in Icelandic history: the end of slavery and the appearance of freedmen. The exact end of slavery in Iceland is difficult to assess though Karras suggested the advent of Christianity in Scandinavia contributing to its decline there (Karras, 1988: 142). However, based on the evidence from Grágas, she placed the true end of slavery roughly in the middle of the 12th century despite the fact that earlier than this date slaves were being freed in the new settlement (Karras, 1988:135).

According to Karras (1988) the reasons for liberating slaves had more to do with why landlords changed from slave labour to free labour and tenant farming (Karras, 1988: 122). One reason was the question of slave control. Without there being direct confrontations between master and slave in the Icelandic setting, Karras attributed the freeing of slaves to an overall disloyalty and resentment on the part of slaves, making it increasingly difficult to obtain adequate service and work (Karras, 1988:123-127). Therefore, when the slave owner could no longer benefit from his slaves, by ridding himself of his legal responsibilities, he was appearing generous on one hand, by setting them up on their own farmsteads, and on the other hand, by
making a greater profit from their new status (Karras, 1988: 129). Under this light ridding oneself of one's slaves becomes a better economic means of exploiting them (Karras, 1988: 144). By the same token, Karras pointed out that not all tenant farmers mentioned in the *Landnámabók* were former slaves and some may have been family members, new immigrants etc. (ibid.) According to this author another social strata also began to emerge: that of free landless workers (ibid.).

Other reasons given for their decline could be a decline in the supply of slaves being imported into Iceland (Karras, 1988:143). While the supply was still available it was thought that it might have been cheaper to import slaves rather than rearing them as children (ibid.). One must also not dismiss the fact that Iceland had no significant export economy or ports, which in turn might have benefited from a slave workforce, as was the case in other regions of Europe. This too may have contributed to the decline of slavery (K.P. Smith, personal communication, 2001).

Once free, the status of the freed slave was still not comparable to that of a freeborn (Karras, 1988: 131). According to *Grágas* the earliest Icelandic law code, it is said that the in Iceland the master continued to retain the right to inheritance over the former slave particularly if he had no descendants (Karras, 1988:132). By the same token if the former slave fell into need it was the duty of the former master to support him (ibid.). Karras saw the status of freedmen in Iceland as a kind of intermediary status between free and unfree, becoming clients to their former masters, and yet looked down upon by their own freeborn children or the rest of society (Karras, 1988:133). Furthermore she added:

“There are numerous instances of resentment over freedmen who have become well-to-do. The sagas do not regard freedmen as full members of the community unless they are the children of free fathers with slave women and the fathers have given them a kin group with which to identify.” (Karras, 1988: 134).
Whatever the exact pattern of labour the freed man adopted, whether tenant farmers, or landless labourer, the former slaves rapidly became assimilated into mainstream society and rather than being perceived as "slaves" were added onto the complex social make up already at hand.

The social analysis of jewellery and its relevance to understanding the early settlement of Iceland

The settlement patterns of Iceland as well as the elaboration of social categories reflect that Iceland was socially complex and that several social groups were interacting with each other. Some of the interaction may not have been peaceful and undoubtedly much of it must have revolved around acquiring power, hierarchy, and status through various mechanisms. One of many mechanisms used by societies is the manipulation of cultural behaviour, symbols and material cultural. In a new society such as landnám Iceland, cultural symbols may have been chosen, enhanced, recycled and readapted in this new setting to convey new ideas about who the settlers were and how they were choosing to perceive themselves. Among of few of these symbols, one could include farming strategies, burial customs, dress and adornment as well as others. Ultimately with time it was the selection of symbols of identity that led them to define themselves as Icelanders. The same phenomenon occurred in the Americas. Cultural identity is not something static and how the symbols are selected and exploited help affirm political and social ideals.

However, much of archaeological research until now has been based on proving and supporting the written literary sources, followed by an intense interest and pursuit of environmental concerns, followed by a more recent interest in settlement patterns. What has not yet been properly addressed and should be added to the list of current research are studies in the material culture of Iceland's past, and using material culture as an implement for
social analysis and social understanding. As was stated by Vésteinsson and mentioned at the beginning of this chapter, researchers need to look at older data-sets and submit them to new questions as well as engage in more widespread archaeological investigations, in order to establish more concrete evidence about the settlement of this country. Jewellery is an older data set that is an important part of burial data. Furthermore, contrary to the literary sources that were written two centuries after the Viking period, it is a first hand testimony of people’s beliefs and ideas. Jewellery and burial data as material display, are first hand accounts of how people perceived their own society revealing what they wanted to say about the social standing of their families and family members. Whether graves reflect the deceased role and status in society, or how his/her living kin wished to portray the dead, the jewellery from Icelandic pagan burials are active accounts and sources reflecting the current social reality of the time. In this thesis I propose to investigate if such an analysis is possible and if jewellery from the Viking Age burials of Iceland can potentially shed some light on the settlement of this island.
CHAPTER 2

History of Research

In this chapter I shall present a review of the history of research on Viking jewellery. Without limiting myself to social studies done on this topic, I will try to offer a global view of what has been done until now, and verify what sort of approach has characterised the study of Viking jewellery. This overview will enable me to situate where such a study stands in light of what has been done.

I have presented the literature chronologically and according to region. What I understand by 'region' are the areas where the material (jewellery) was found. An example of this is Norway, where an important body of literature was written about Insular jewellery and metal-work found in Norway. I have included these writings as part of the 'Scandinavian' section of my text as this jewellery was found on Norwegian soil, even though it may have come from elsewhere.

History of research, Scandinavia

Early research

Early publications on Viking jewellery go back to the past century, with the important volume of Swedish artefacts classified by Oscar Montelius (1873). A first edition was published in Swedish in 1872. The 1873 edition was a French version entitled Antiquités Suédoises. This work is a catalogue of Swedish artefacts from the Stone Age to the late Iron Age inclusive. Montelius offered a brief explanation per period, but the catalogue consists for the most part of an elaborate compilation of beautiful illustrations done by
C.F. Lindberg. What this catalogue achieved for its time was to organise these artefacts into a chronological manner. By the same token, the author ascribed numbers to each artefact, thus, creating a reference system that could be used in future research. Montelius produced other works on Viking period jewellery, in 1873 he published *Om de ovala spännbucklorna*, on oval brooches.

O. Rygh, in *Antiquités norvégiennes/ Norske Oldsager* (1885) in a French/Norwegian catalogue proceeded in exactly the same manner as Montelius but this time with Norwegian artefacts. He too was able to establish some sort of chronology for artefacts and a reference system. His book consisted of two volumes, beginning with the Bronze Age terminating with the late Iron Age or Viking period.

Jan Petersen offered a slightly more recent classification of artefacts than those of Montelius and Rygh. In 1919 Petersen began a chronological and typological study of Viking period swords of Norway, a first of its kind. He followed up in 1928 with his compilation of jewellery *Vikingetidens Smykker*. The last of the Petersen series in 1957 was yet another work offering a similar approach to Viking period tools. Contrary to Rygh and Montelius who contented themselves with publishing a catalogue of artefact illustrations, Petersen's was more elaborate and placed more emphasis on artefact description as well as information pertaining to the origins of each piece. Both Rygh and Petersen's classifications of jewellery are still in use today, and it is not uncommon to encounter in the literature brooches being referred to as P51c or Rygh 652 and 654. In this dissertation I will be referring to these older typologies when discussing jewellery or brooch types.
Modern investigations and trade centres

Large-scale excavations of Viking-Age trade centres in Scandinavia have brought to light considerable archaeological material relating to the study of jewellery. Some of this research has been on practical jewellery making and much of the information we have today on techniques of Viking period metalwork comes from the research associated with these excavations.

Helgö

Helgö, though a Migration period site, displayed large-scale metal-working activities including jewellery production. This information is of interest as the techniques from this period compared to those of the Viking Age may not have differed greatly. Werner (1981) described tools used in silver smithing and is still a valuable reference catalogue for researchers interested in practical matters relating to the use of tools. Some of Werner's selection of material is discussed in the final chapter of this with reference to the grave of Silastaðir. Holmqvist (1972) wrote an article on the workshops of Helgö, and in the same edition, Waller looked at dress-pins, though the pin typologies are not relevant to the material in this thesis.

Lamm (1973) presented casting techniques as well as jewellery production, as much workshop debris was recovered from Helgö. Crucibles, mould fragments, metal-working hearths etc. made it possible to obtain from these finds detailed analyses of the various chemical components used in metal-working implements as well as the silversmiting process. Some of the suggested temper mixtures in Lamm's article were utilised during the experimental trials of this thesis and will be discussed in greater length in Appendix A. Oddy and Meyer (1986) carried out metallurgical studies of the gold from Helgö in order to establish the composition of gold from the early medieval period.
Ribe
Excavations at Ribe also resulted in some research into the practical dimension of Viking jewellery and fine metalwork. Brinch-Madsen in 1984 published, as part of the Ribe excavation reports, a volume dedicated to metal casting at Ribe. Among some of the material discussed were: crucibles, tuyères, bronze waste, and mould fragments used for casting keys, pins, equal-armed brooches, penannular brooches, and oval brooches of the Berdal type (Brinch-Madsen, 1984: 98). This volume is very informative with a catalogue of material at the end. Not unlike the result from Lamm’s analysis at Helgö, Brinch Madsen’s analysis of casting techniques from Ribe have served as an important guideline to the technological studies done as part of this dissertation. The details of Brinch-Madsen’s experiments are described in Appendix A. Debris from amber carving and bead making were also recovered from Ribe. Amber is the topic of another publication by Botfeldt and Brinch-Madsen (1991).

Hedeby
Hedeby in Schleswig-Holstein, now a part of Germany, figured as an important Viking period trade-centre revealing information on craft production and metal-work. Relating specifically to jewellery, T. Capelle published in 1968 an important volume dedicated to the metal jewellery of Hedeby. While the style of this publication is more of a catalogue than a social commentary of the material, it offers, along with other catalogues discussed in this chapter, an important comparative reference source when analysing material from the Viking world. Capelle discusses and presents jewellery reviewing such questions as art styles, and geographic origins of the pieces.

If one considers decorated sword hilts and pommels inlaid with silver and copper, as part of jewellery and bodily adornment, then it is worth mentioning the work of Müller-Wille (1973). Müller-Wille reported the discovery and
context of discovery of two finely decorated Viking swords from the region surrounding Hedeby. The swords decorated with silver and copper inlay proved to have Jelling style ornament and were recognised as S-type swords from Petersen's classification (Müller-Wille, 1973: 77-79).

Birka

Birka is the one Scandinavian trade centres offering abundant literature and research conducted on the analysis of Viking period jewellery and adornment. An earlier study, conducted in 1974, is that of Inga Hägg where she offers a reconstruction of female dress and adornment from the Birka material. Issues touched upon are the reconstruction of specific items of clothing, the function and role of oval brooches on women's garments, as well as textiles used in the making of female clothing. The research is based on grave remains.

Later works written in German for the most part, are the works by Aagård (1984) who carried out a typological analysis on equal armed brooches from Birka. Aiken and Arwidsson reviewed rings and bracelets made of both bronze and jet. These studies along with others described below are taken from the Birka II:1 Series, entitled: Systematische Analysen der Gräberfunde (1984).

A penannular brooch classification for the material from Birka was among the issues brought up in the research of Harry Thålin, while Thunmark-Nylén addressed the ringed pins. Graham-Campbell offered, in the same volume, a modified classification to this same material. His discussion focused on the western influence on penannular brooches as well as ringed pins from this site. This article has proven most useful in the identification of certain Icelandic penannular brooches in the thesis. This author reviewed this material in light of possible Insular influences and concluded that these penannular brooches and ringed pins should not to be perceived as direct
imports from the British Isles, but rather a fashion stemming from Norway where they were already being made and altered (Graham-Campbell, 1984: 38).

Jansson (1985) dedicated several studies to the jewellery from Birka, and offered one of the most in-depth analysis and comprehensive studies on oval brooches published to this day in *Ovala spännbucklor*. However prior to this impressive work, he published a preliminary article in 1981, outlining some the main ideas he developed in *Ovala spännbucklor*. Of particular interest to the present work, is a description of casting techniques that are discussed at length in Appendix A. In *Ovala spänbucklor*, while providing a review of the typology and chronology of oval brooches from Birka, Jansson continued to utilise the typological classification of Petersen, as oval brooches are highly standardised across the Viking world (Jansson, 1985: 221). His original contribution to this already existing system was to offer a more accurate chronological and cultural framework for the brooches, and to recognise 'sub-families' within the already existing system (Jansson, 1985: 222). He established, for example, genealogies for each type of brooch by referring to the various components of oval brooches, side panel designs etc. Regarding the P51 type brooch he explained:

"The combination of patterns also reveal a remarkable regularity. This speaks in favour of the idea that the craftsmen used models of complete brooches, and if this is correct, it would be possible to arrange the variants of P51 in a 'genealogy', which may divide into several branches but these branches will never join up again. In other words, a certain pattern should only be found on variants following each other on the genealogy. Further, the patterns which can be identified as representing partial changes of other patterns (Rb1 of Ra1, Rb2 of Ra2, Rc1 of Rd1, Sc of Sa2, and Se of Sd; others may be disputed) would give a consistent chronological direction to the genealogy." (ibid.).

Jansson's study has figured as an important source book in the research carried out for this dissertation. Roughly contemporary to *Ovala spänbucklor* (1985), he published an earlier article on these oval brooches in the *Birka II*:1

60
Series edited by Greta Arwindsson in 1984, as well as a study of small and large round brooches from Birka. This study is largely typological and classificatory in nature and he attempts to establish the origins of certain styles of round brooches. His publication on small round brooches was applied to the Iceland material as Iceland offers several examples of such brooches.

Ingmar Jansson conducted an additional analysis on the belts and belt ornaments of oriental type from Birka in this same volume. This analysis offers descriptive information on art styles, origins and dating of the ornaments, and completes the study with a discussion on the use of belts as well as their archaeological provenance.

Another researcher to have contributed extensively to the study of jewellery from Birka is W. Duczko. As part of the 1985 Birka Series edition, he presented an extensive study on the filigree and granulation techniques from the Viking Period material. In this volume, the techniques of filigree and granulation from Birka were analysed in detail with the aid of a scanning electron microscope (Duczko, 1985: 14). Specialised technical areas of silversmithing were addressed, methods of wire production, fabrication of ornamental wires, and granules used in granulation, types of solder used in the Viking age, gilding as well as an analysis of the metal used in this technique. The author also included in his volume a detailed analysis of each artefact, and then placed the Birka material into a broader context looking at artefacts from Eastern and Western Europe as well as elsewhere in the Viking world (ibid.). Along side this substantial publication this same author published a small article addressing the style, fabrication and origins of a specific artefact, Bj 832 from Birka (1984) decorated with filigree and granulation.
Continuing with the Birka series, Gräslund (1984) conducted an analysis of crosses and religious amulets from Birka. Interestingly ten graves produced silver amulets and most are decorated with circular stamp motifs and some with filigree and granulation. This article, as most in the series, focuses on typological seriation, archaeological context, dating, as well as establishing parallels elsewhere in the Viking world.

Along the same lines Ström (1984) published an article on the iron Thor's hammers from Birka, offering a new classification of the material based on shapes of the hammers as well as the fasteners of the rings on which they are suspended. The archaeological context is also discussed. An earlier publication from the Birka excavations, by Arbman (1940-43) reviewed similar iron hammers, and from Eastern Europe is the paper by Novikova (1992) on iron neck rings and Thor's hammers published in 1992. This author conducted a survey on iron Thor's hammer pendant/amulet from Staraya Ladoga, as well as Gorodišće comparing them to the Scandinavian finds.

Several other studies relating to jewellery and artefacts were carried out in this edition but several are not pertinent to the Icelandic material. Worth mentioning is the study by Hárdh (1984) carried out on trefoil brooches as well as an extensive study on jewellery, and dress from the Birka finds by Ginters. This paper is of particular interest to the study of dress and adornment, and reviews the dress of both men and women from the burial data. For each gender certain elements are discussed in greater depth, such as belts and pouches worn by men, and jewellery worn by women. Particular attention is paid to the origins of oval brooches, with possible influences stemming from Baltic culture (Ginters, 1981: 31).

More recent studies were published in the in *Excavations in the Black Earth* (1995), notably Zachrisson carried out an analysis on three silver hoards and
one gold hoard discovered between 1872 and 1874. By looking at historical sources, this publication attempts to clarify the circumstances of discovery of these controversial hoards.

Ambrosiani reviewed beads discovered in the 1990 excavations offering in depth archaeological information on their discovery, while Price, in the same edition published an interim report from the 1990 excavations on pre-Christian amulets. In Price’s paper, he stressed the fact that the 1990-1995 excavations offered a unique opportunity to move beyond the art historical analysis and classification of artefacts conducted by earlier researchers (such as in the Birka II series), and view pagan amulets in the context of daily living thanks to stratified archaeological deposits rather than through burial (Price, 1995: 70). This paper, therefore, had for intent to set up the context for research into pagan amulets, as well as a description of artefacts discovered during the 1990 season.

Kaupang

Excavations from Kaupang in Norway occurred in two phases, in the past century with the work of Nicolaysen, and more recently between 1950-67 with Charlotte Blindheim. Blindhein, Heyerdahl-Larsen and Tollnes (1981) reviewed the earlier material from burials and stray finds. Recently further excavations at Kaupang have taken place by Skre, Pilø and Pedersen (2000), following up Blindheim’s research. Insular metal-work from Kaupang and Norway in general, has been the focus of numerous writings.

The first study of Insular jewellery from Kaupang was produced for the fifth volume of the Viking Antiquities a series edited by Shetelig (1940) but written and compiled by Jan Petersen. This area was not entirely new to Petersen as he had already touched upon Insular jewellery in the Norwegian material in Vikingetidens smykker.
This topic was further reviewed by Bakka in 1965. Bakka did not limit his work to Kaupang but looked throughout the Norwegian material and concluded that both Anglo-Saxon and Irish metal-work had made its way into Norwegian Viking graves (Bakka, 1965). This particular work is very art historical in content as the author used artistic design to establish these parallels. He did not offer elaborate theories but concerned himself more with the pieces and establishing their place of origin.

Blindheim (1976) discussed the Insular metal-work from Kaupang in another article. The cemeteries at Kaupang are said to have revealed the largest collection of Insular bronze metal-work found on any site in Scandinavia (Blindheim, 1976: 13). In this article, the author addressed two types of metal-work: that of an ecclesiastic nature and of a secular nature, the former being traditionally regarded as loot, the latter considered to be the result of trade (ibid.). Of particular interest to the study of jewellery from the North Atlantic, this author enumerates and describes the various pieces, offering information about context and possible geographic provenance.

In a later work, Blindheim (1978) challenged the belief that foreign metal-work found in Norway was necessarily loot. The author argued that too much emphasis had been placed on interpreting foreign objects found on Norwegian sites as the result of pirating activities. Instead she suggested that objects such as house-shaped reliquaries could have been the result of gift giving, or bribery (Blindheim, 1978: 176). By the same token, objects which had been cut up into small pieces either transformed or not, could have come into Scandinavia as the result of trade and were sold as precious second-hand jewellery (ibid.).

Wamers (1983) offered yet another contribution to the question of Insular objects found in Norwegian graves. Though not specifically dedicated to the study of jewellery, there is mention of jewellery, and particularly, Insular
objects transformed by Viking craftsmen into pendants, brooches etc. This article is largely descriptive and the author enumerated item after item looking for the origins of each piece in the British Isles.

Insular jewellery from Norway figured once again in a work by James Graham-Campbell (1987). Rather than looking at the bulk of Insular material Graham-Campbell focused on the penannular brooches of western origin from Norway and provided a new classification for these brooches. This article is very useful when looking for parallels in Norway and elsewhere of the types of penannular brooches presented here. Furthermore, his article like much of the work on Insular jewellery constitutes some of the research conducted on material from the Norse expansion westward and ultimately from the North Atlantic.

More general Scandinavian works

Beads

A. Lundström (1976) discussed beads and bead making in Scandinavia. This article is dedicated primarily to a comparative study of bead making within two nucleated settlements: Helgö and Paviken (Lundström, 1976: 1). The author used, as comparative data, material from other trade centres, Ribe, Birka, and Hedeby where similar bead and bead-making activity was carried out.

J. Callmer (1977) published one of the most complex and detailed analyses done on Viking period beads. Trade beads and Bead Trade in Scandinavia ca. 800-1000, looked at three issues relating to Viking period beads from across Scandinavia: establishing a new chronology for beads and attempting to determine chronological phases during this particular time span; the diffusion of beads in Scandinavia; and finally a social interpretation of beads and their use in Viking society (Callmer, 1977: 9). The chronological analysis
was by far the most significant part of his study, while diffusion and the social study were discussed in two short chapters.

Tools and technology
For a more global Scandinavian perspective of jewellery, one can look towards the writings of Signe Horn Fugelsang. This author has done much research on Viking art and arts styles. An article published in 1981 looked at crucifixion iconography in Viking art from various regions of Scandinavia, and in 1989 she offered an in-depth description, classification and overview of Viking period amulets which is presented in Chapter 6 of this thesis.

In 1987, she produced another very interesting article regarding the identification of jewellery workshops apparent in certain oval brooches. She touched upon technical issues, such as, shrinking in casting, as well as visual copying of existing models. Furthermore, she raised the important issue of quality in Viking jewellery, pointing out that not all oval brooches and jewellery were of equal quality (Fugelsang, 1981: 228). The material discussed is from all over the Viking world including Iceland, and enables the reader to understand jewellery in a more global context. In 1992 she offered a detailed description of the steps involved in the casting of oval brooches in a brief article in From Viking to Crusader, Scandinavia and Europe 800-1200 edited by Roesdahl and Wilson (1992).

While discussing the technological dimension of jewellery making, the article by Lamm (1973) with reference to the workshops at Helgö was discussed above, and important to this line of research is a paper published by Ingmar Jansson in 1981 on the making of oval brooches. This paper was briefly mentioned above but its contents are reviewed in the technological section in Appendix A.
Bjarne Lønborg (1994) in *Kuml 1991-92* offered some insights into the fabrication of oval brooches following experimental trials. According to this author, practical trials on the production of oval brooches were lacking in archaeology, with deficiencies and errors to be found in former research (Lønborg, 1994: 163). He sought to verify and correct any misconceptions and misinterpretations that may have existed (ibid.). His method of production included some interesting preliminary problems to the actual wax casting: such as the making of a basic model, as well as the making of a master mould, and the production of wax copies from the master mould (ibid.). Furthermore the author addressed the question of shrinkage in casting and was able to determine that the working time involved in the making of an oval brooch of JP 37 type was of approximately 20 hours (Lønborg, 1994: 164).

Some recent work has been carried out on oval brooch production in the urban site of Gnezdovo by Natalia Enisosova from Moscow State University in two unpublished and undated articles (C. Paterson, personal communications, 2000).

Publications on tools have been looked at earlier on with reference to Scandinavian trade centres such as Helgö and Ribe. However, work on tools has not been limited to these sites. Munksgaard published in 1984, an article reporting the discovery of a tool chest from Lindum Storskov in Denmark. This proved to be one of the few tool collections discovered in Denmark (Munksgaard, 1984: 85). Of particular interest to the study of non-ferrous metal production, is not the tool assemblage itself, but what the author refers to as the 'stock-in-trade'. The stock-in-trade consisted of numerous items, some made of bronze, the most interesting being the eyebrows and nose guard of a helmet (Munksgaard, 1984: 87). For a social study of jewellery this is an interesting detail as it may reveal something of the blacksmith and his role in society. It could suggest that some
blacksmiths were indeed involved in fine metal-work alongside the traditional blacksmith's work.

Arwidsson and Gosta Berg presented an impressive collection of Viking tools in 1983. This publication entitled *The Mastermyr Find: a Viking Tool Chest from Gotland* reported the discovery of a very elaborate tool chest from the island of Gotland. This book is a catalogue of finds offering extensive information on the tools used during the Viking period. However, the authors also provide some useful information into other dimensions of smithing, notably, skills, the use of selected tools, as well as the social status and role of smiths in Norse society. The age of the find is also discussed, and a metallurgical analysis conducted on the iron is included in the appendix.

**Artefact catalogues**

Catalogues of Viking period artefacts and jewellery cannot be discussed without mentioning the extensive work by James Graham-Campbell 1980, in *Viking Artefacts* which had for goal the amalgamation of Viking period artefacts loaned to the British Museum in 1980 (Graham-Campbell, 1980: 3). While not relating specifically to jewellery, but artefacts in general this remains an important reference book on Viking period material culture.

Thunmark-Nylén published a catalogue in 1995, on the Viking age material from the Island of Gotland. This catalogue, in German, is intended as an artefact catalogue and the final book of a series on the Iron Age of Gotland (Thunmark-Nylén, 1995: 5). Rather than using archaeological illustrations of the material the author has chosen black and white photographs. This is a very useful catalogue and offers important quantities of jewellery and jewellery styles from this area.
Specific studies

Skibsted Klæsøe (1997) has carried out more recent work on chronologies of Viking age jewellery. In an article derived from her doctoral research, she reviewed plant ornament on Viking jewellery in the light of new research carried out on European plant ornament. The author argued that new discoveries on European material could shed some light onto when plant ornament appeared in Scandinavia, thus, providing a new and modern chronology for Viking period artefacts (Skibsted Klæsøe, 1997:73).

In 1996 Brigitta Hårdh published a study on Viking silver. This was intended as a regional and economic study of Viking silver. While working mostly with Scandinavian silver hoards, the author did attempt to look past the chronology and cataloguing of silver hoards, and analysed the social dynamics behind the economy of the Viking age as well as the social significance of silver. There is a chapter dedicated to silver jewellery in hoards and more specifically to silver neck rings and torques.

North Atlantic Isles

Faroe Islands/Greenland

The Faroe Islands, as well as Greenland produced no specific analyses of jewellery from the Viking Age. Undoubtedly this has to do with the fact that both these regions have very few pieces of jewellery. There is mention of the Faroe Island's Viking jewellery in Føroya Søga, Nordurland og Føroyar, written by Debes H.J. (1990), though not in any detail as this publication is concerned with the global picture of Faroese archaeology.

Also on a more general note the article by Steffen Stummann Hansen (1995) offered some details of jewellery finds in conjunction with the sites of
Toftanes. They include two ringed pins, a jet bracelet as well as a small round brooch (Stummann Hansen, 1995: 478-479).

Iceland

Several scholars have addressed the question of silversmithing and jewellery in Iceland. Of particular interest has been the question of local jewellery production and several publications deal with this issue.

Among the first to look into the question of silversmithing in Iceland was Mattias Þórdarson in Nordisk Kultur (1931). The information is general, mentioning that Norse colonist brought with them items of fine metal-work, be this jewellery or weapons. Among some of the artefacts discussed, this author suggested that certain pieces may indeed have been made locally in Iceland though discerning which were imported and which were made locally would be a difficult task. (Þórdarson, 1931: 333).

In 1943 this topic was again mentioned by the same author in Indssaga Islands II: 'Malsmiði fyrir a timum', with an emphasis on bronze oval brooches, bells, sword chapes found in burial contexts. According to Þórdarson, these pieces were most likely imported from Scandinavia though does not dismiss the possibility of their being among the colonist 'smiðir', or smiths, able to make such pieces (Þórdarsson, 1943: 276).

In Fórmthjod og minjar (1974), Eldjárn concluded that there is no way to determine with certainty that artefacts from the 10th century were made locally or imported, and it is therefore difficult to speak of a native Icelandic "art" (Eldjárn, 1974: 147).

From roughly the same period as Eldjárn, Björn Björnsson in Islenskt gullsmiði (1954), offered further ideas on the question of local silversmiths.
Björnsson, felt that early Icelanders probably possessed greater quantities of jewellery and precious metals than their forefathers in Norway, due to the fact that when departing their homeland, the Norse settlers were forced to sell their farms and livestock. What better way to transport one's wealth than in the form of jewellery or portable items? (Björnsson, 1954: 4-5). He added that great quantities of silver would have made their way to the new colony, and would have remained there for many centuries, to the extent that even today women wear in their jewellery metal which was brought on the "longships of the 9th and 10th century" (Björnsson, 1954: 5).

Thor Magnússon contributed to the discussion on jewellery, and in 1987 stated that much of the Viking period jewellery had been imported from Scandinavia, as the designs on Icelandic examples were common in Scandinavia. He sited as example the torques found in a silver hoard in the vicinity of Eglistaðir, as well as an Urnes style brooch from Trollaskógur, though the latter, he thought could have been produced locally (Magnússon, 1987: 28-30) Icelandic goldsmiths, arose, according to this author, during the Medieval period and were commissioned by the church (Magnússon, 1987: 16). They would have learned their skill in Europe (ibid.).

Despite these works on Icelandic jewellery and local production, Kristján Eldjárn (1956) offered the most detailed account of Icelandic jewellery in Kuml of Haugfé. His PhD thesis was the first attempt to organise in a structured manner the Viking burials of Iceland as well as their grave goods. Eldjárn did dedicate a section of his book to Icelandic jewellery and used the chronologies of both Rygh and Petersen. Some stray finds were also included in this study though to a lesser extent. Graves and grave goods discovered since Eldjárn's catalogue have recently been republished in a new edition of Kuml og Haugfé (2000) with the co-authoring by Adolf Friðriksson and illustrations by myself.
In 1961 K. Eldjárn wrote an article about two trefoil mounts from Iceland. The article was entitled 'Smásaga um tvær nælur-og þrjár þó'. These same brooches were the topic of another article by Paterson (1997) comparing them to similar trefoil brooches found in Shetland and England. Though more concerned with the British and Scottish models, the Icelandic pieces were discussed as comparative data and demonstrated a connection between Iceland, the North Atlantic and the United Kingdom.

**United Kingdom and Ireland**

Paterson's article introduces the topic of the history of research on Viking jewellery in the United Kingdom. A large number of publications on Viking jewellery from this region have focused on reporting finds, discoveries, discussing artistic styles and designs, or looking for geographic parallels to the local material. More recently, some studies have addressed the technical problems of jewellery making. Catalogues have also been produced. However, very few of these studies have integrated into their analyses a discussion of the impact of some of these topics on the social make-up Norse society. My belief is that the study of style, or geographic parallels etc while being useful and necessary archaeological studies, should not be a means to an end but an opportunity to address larger issue of social and anthropological significance.

**Scotland-Northern Isles**

**Early research**

From the 1800s, Mr Robert Campbell (1872) published a report on the discovery of eight silver arm rings of the Viking Age from Caithness.
Whether these rings were part of the grave goods of the occupants of the cist in question or placed there after the fact as a hidden treasure was uncertain (Campbell, 1872: 427). In the same vein, J. Anderson published two articles (1879, 1906) reporting the discovery of Viking burials and offered some specific information on the jewellery found in these burials. The articles are for the most part straightforward, describing the jewellery in great detail and offering information about the context. In 1881, the same author wrote an article on the ornamentation of silver brooches found at Skaill concluding that certain elements on the brooches were more Celtic while others were Scandinavian. He saw this to be a reflection in the jewellery of a mixed Celtic-Norse population (Anderson, 1881: 297).

Edwards described the discovery of silver armrings and rings from Stornoway in 1939, Goudie (1913) wrote about a gold armlet discovered in Shetland, and Curle (1914) reported grave finds from Oronsay and in the same article looked at the chronology of oval brooches from Reay in Caithness. In the latter part of his article, Curle tried to retrace the evolution and chronology of oval brooches from Scotland, at the time said to be no less than 41 (Curle, 1914: 299). Based upon research done by Montelius on the oval brooches from Sweden, Curle recapitulated some of this information in his article looking for parallels in the Scottish material. From this information he was able to ascribe dates to the Scottish oval brooches relying on the fact that the one-shelled oval brooches were of an earlier date than the two-shelled type:

"We know that in the evolution of this type of ornament the brooch composed of a single plate of metal preceded the type in which, with a view to heighten the ornamental relief, the upper part was cast separately and affixed to the brooch proper, and is in consequence known as the double-scaled variety." (Curle, 1914:298).

He was, thus, able to date the Reay brooches to the end of the 9th century, and the first half of the 10th (Curle, 1914: 313).
As already mentioned, Haakon Shetelig (1940) edited an important series on *Viking Antiquities in Great Britain and Ireland*, of which volume five was dedicated to the Insular material at Kaupang. Sigurd Grieg (1940) wrote volume two, a work that remains for the time being the only catalogue of Viking period burials and finds in Scotland (see Graham-Campbell and Paterson below). Within this important work one can find details on silver, gold and bronze jewellery discovered in Scotland. Grieg included burial finds, hoards, finds from dwelling sites, as well as stray finds.

The *Viking Antiquities Series* is a vital and useful tool in the research of Viking period artefacts and jewellery. However, it is also known today to have many inaccuracies (C. Batey, personal communication, 2001). Artefacts are enumerated and when possible something of the context as well as the date of discovery is mentioned. The authors provided references relating to each piece, and in some instances indicated where the artefacts are to be found along with their museum reference numbers. Though slightly out of date by today's standards, these works do remain quite remarkable in that they attempted to organise into some sort of system the Viking material from the United Kingdom.

Modern investigations
Slightly more recent and relating to Viking period jewellery are the writings of Stevenson (1968, 1974, and 1987). Stevenson's 1968 article described the discovery of a 9th century Viking burial from Westness, Orkney, and more specifically a brooch thought to be a slightly later version of the Celtic 'Tara' type brooch (Stevenson, 1968: 30). This work is more concerned with the brooch, its design and origins than the actual burial itself. It came to be known as the 'Westness brooch' and was along with the Hunterston brooch the topic of another article by the same author. The Hunterston brooch was another Celtic type brooch found on the southwest coast of Scotland and carried an Irish name inscribed in 10th century runes (Stevenson, 1987: 93).
Once again Stevensen, in this report, was concerned with issues of design and the progressive alteration of design on the brooches suggesting that these pieces along with others should be dated over the period of the 8th and early 9th centuries rather than compressed (Stevensen, 1987: 94).

On a more technical note, R. Warner (1975) published an article offering an analysis of the weight distribution of Scottish silver arm-rings presented by J. Graham-Campbell (Warner, 1975: 136). James Graham-Campbell himself produced some of the most extensive work in this area, particularly on silver hoards but touched upon gold and silver jewellery as well. Much of his research has involved the tracking down of lost pieces of Viking jewellery, publishing more recent discoveries and looking for correlations in jewellery types across the Viking world (1975, 1976, 1982, 1983a, 1983b, 1984, 1985, 1987). The culmination of his work on hoards and silver and gold jewellery was published in 1995 in *The Viking Age Gold and Silver of Scotland*, and constitutes the most in-depth catalogue of Viking gold and silver jewellery from this region.

More recent work by the same author with the contribution of an Irish scholar Sheehan (1995) reviewed a collection of possible Scottish Hiberno-Norse arm rings. Though, still very descriptive, this article does look at three arm rings from the British Museum in light of five others from the National Museum of Ireland. J. Sheehan, like Graham-Campbell, devoted his own research to Viking silver and hoards from Ireland. His MA thesis, unfortunately unpublished, addressed silver Viking period arm-rings from Ireland. From the same author another article was published in 1990 entitled “A Viking-age silver arm-ring from Portumna, Co. Galway”.

James Graham-Campbell's work on Viking jewellery, though of great significance, does not consider social interpretation. This author has focused on establishing parallels for the Scottish material, and is very descriptive in
his analysis. Furthermore, in his writings, the question of bronze jewellery in Scotland is rarely included. For work on bronze Viking period jewellery one must look at the work of Thomas Fanning (1983), for typological and chronological details on Irish ringed pins in Scotland. At the end of this article the author offers a small catalogue of these ringed pins with their location, provenance as well as their museum numbers.

For more recent information on other pieces of Viking bronze jewellery from Scotland one needs to consult reports on Viking burials a few of the more recent being: Batey (1993) on Norse finds from Caithness and Sutherland; Dunwell, Cowie, Bruce, Neighbour and Rees (1995) on the Viking age cemetery at Cnip on the Isle of Lewis as well as Welander, Batey, Cowie (1987); Gordon (1990) on the grave from Cruach Mhor; Hunter and Dockrill (1982).

Of particular relevance to practical jewellery making, Richard Welander presented in Welander, Batey, and Cowie (1987), an analysis of the bronze jewellery found at Kneep, on the Isle of Lewis. Welander demonstrated that certain metals and treatments were used in conjunction with the gilded bronze in the fabrication of oval brooches. For example, the side panels on the lower shell of oval brooches were silvered in appearance (often achieved by rubbing soft solder to the surface), yet these showed no traces of silver or tin (Welander, et al., 1987: 160). Instead, the author suggested that these side panels might have been acid-etched, thus removing the copper from the surface, and giving a white lustrous finish (ibid.). Furthermore, by qualitative XRF and wet chemical analysis it was found that the applied bosses on the top shell of the brooches were made of a lead/tin alloy, similar in composition to soft solder (ibid.). The interesting aspect of this technical study shows that the gold on the guilded oval brooches was contrasted with silvered side panels, along with silver bosses, and fine silver twisted wire on the upper-
shells (Welander, 1987: 161). This contrast of material was intentional (ibid.).

From the 1980s, Wilson (1983) addressed a frequently neglected area of Viking jewellery: bone jewellery. In this article, Wilson discussed the use and significance of bone pins in Viking dress and adornment by looking at a specific pin from Sconsburgh Dunrossness, Shetland. Wilson pointed out that certain bone pins need not always be interpreted as needles and tools, but rather as cloak fasteners (Wilson, 1983: 343). He based his observation on the fact that certain pins are so ornate that they may have been intended for display rather than being purely functional (Wilson, 1983: 347). Wilson used as comparative data Viking material from other regions such as, Jarlishof, Lund, Aarhus, London and Birka.

The most recent publications to offer some information on jewellery are dedicated to more general topics such as Vikings in Scotland (1998) by Graham-Campbell and Batey. Chapter 12 of this book offers descriptive information on Viking gold and silver from Scotland be that hoards or jewellery. In a similar vein the publication by Owen and Dalland (1999) on the Scar boat burial contains a subsection on the jewellery found in this assemblage.

Recent research is being carried out by Hunter from the National Museum of Scotland (1999,2000) on Viking jet and related materials, such as lignite and shale and its use in Norse jewellery in Scotland. Using x-ray fluorescence analysis and x-radiography, some of this research is attempting to clarify the frequently misdiagnosing of source material. Archaeologist have frequently assumed that much of the Norse material thought to be jet is jet when in fact jet had a very restricted source (Hunter, 1999:7).
Forthcoming, Graham-Campbell and Paterson are currently preparing a grave catalogue for Scotland that in turn will contain all items of jewellery found in burial contexts throughout this region.

Ireland

Early research
Some works by Irish scholars, such as Sheehan, on Scottish Viking Age jewellery have already been mentioned above. Let us look now towards earlier works on Viking age jewellery from Ireland.

Once again the Viking Antiquities series has a volume dedicated to the Irish material. Volume three of Viking Antiquities, written by Bøe (1940), was entitled Norse Antiquities in Ireland. Bøe, like other scholars working on this edition, dedicated his research to finds from various contexts organising this Irish Viking period material into some sort of format. The approach as with other volumes from this series is similar.

Modern investigations
James Graham Campbell also reviewed material from Ireland in the 1970s (1972, 1974, 1975). His approach differed little in his earlier writings that were also largely art historical in content, looking for geographic distributions of certain types of jewellery as well as design. The 1975 work on bossed penannular brooches reviewed the provenance and production of this type of brooch tracing them back to Ireland (Graham-Campbell, 1975: 42). Furthermore, he argued that the bossed penannular brooch were a product of a local Irish milieu (as Irish brooches from the 9th century were either pseudo-penannular or penannular in form), which were then distributed outside of Ireland into a Norse context (ibid.).
Thomas Fanning, mentioned above with reference to Scottish ringed pins, is best known for his research on the ringed pins of Dublin. In 1994, he published a catalogue entitled *The Irish Ringed Pins of Dublin*. This is another significant reference work, one vital in the analysis of North Atlantic Viking material. The interesting aspect of Fanning's catalogue was that contrary to older attempts at establishing chronological studies of the ringed pin, such as that of Armstrong (1922), Fanning had succeeded in offering a far more accurate chronology of ringed pins as most of his data stemmed from stratified datable levels (Fanning, 1994:2).

*England-Isle of Man*

**Early research**

Among earlier sources on Viking jewellery from Lancashire, T.D. Kendrick (1928) wrote an article entitled "The Claughton Hall Brooches". Kendrick's paper is yet another of these early articles interested in reporting finds, in this case the discovery of two burials. One of these burials was believed to be from the Bronze Age the second one from the Viking age (Kendrick, 1928: 117). The Viking Age burial contained two oval brooches, a "silver-gilt and nielloed ornament transformed into a brooch, and two glass beads" (ibid.), consequently all objects identified as jewellery. The brooches were the standard P51 type, dated by the author to no later than 950AD (Kendrick, 1928: 118). Of particular interest, was the nielloed ornament, demonstrated to be a piece of Carolingian Continental metal-work, transformed into a brooch by Viking craftsmen (Kendrick, 1928: 122-123). This article, while out of date, displays the following remarks in reference to Viking oval brooch design:

"In style they represent a purely northern and barbaric decorative idiom that had been to some extent influenced by Carolingian metal-workers." (Kendrick, 1928: 118)
Slightly less dated than Kendrick's, is Volume IV (1940) of the *Viking Antiquities* series written by both Bjørn and Shetelig. Volume IV was on the Viking antiquities of England with a section of the book concerned with Viking artefacts on the continent and in Western Europe.

**Modern Investigations**

While not relating specifically to jewellery, the 1993 M.Litt thesis by Caroline Richardson (now known as C. Paterson) from Newcastle University, looked into the Borre art style in material from the British Isles and Ireland in an attempt to reassess the body of data which included more recent finds. This researcher addressed issues of imported and local items, and focused on form, material ornamental detail and context.

Some modern investigations into Viking jewellery from England, have centred around the excavations at York. *The Non-Ferrous Metal-working from 16-22 Coppergate* written by Bayley (1992), is a recent publication discussing silversmithing and metal-workshops from Coppergate. Bayley looks at all dimensions of non-ferrous metalworking and provides some useful information concerning crucibles, ingot moulds, tools, and looks at the various metals worked on this site. Bayley suggested that metal-workers engaged in the work of more that one type of metal (ferrous and non-ferrous) or else shared the workspace with other craftsmen (Bayley, 1992: 816).

From the same series, *(The Small Finds Series)* the 1999 publication by MacGregor, Mainman and Rogers entitled *Craft, Industry and Everyday life: Bone Antler, Ivory and Horn from Anglo-Scandinavian and Medieval York* offers a compilation and analysis of bone antler and ivory finds including jewellery. The more recent publication by Mainman and Rogers (2000) from the same series, looks into the production of non-ferrous metals among other artefact production.
Last but not least, Margeson in 1997 published a book on the Vikings in Norfolk and offered some detail about jewellery from this region.

The social analysis of Viking jewellery in light of past research

Looking at the overall picture of research into Viking jewellery, one could argue that most of what has been done has focused primarily on the analysis of artistic styles, reporting of finds, establishing typological sequences of jewellery, offering abundant archaeological data. While all of these approaches are a necessary step in the archaeological process, certain of these studies are more in keeping with an earlier tradition of archaeology, interested in the collecting of objects, establishing typologies and chronologies of artefacts. Some of them are a means to an end, without attempting to look beyond at the society behind the archaeology, and few really offer an anthropological focus to enhance their research. It is my opinion, as stated in the introduction, that while earlier studies are an important asset to the field of archaeology, in so far as they offer a common vocabulary and basis for scholars to work with they should not end there.

In Scandinavia, research began in this perspective. Today, though the body of data has expanded, excavation techniques are more rigorous, several scholars involved in jewellery research continue in the same tradition. In the United Kingdom, studies of Viking jewellery underwent a similar development. As most Viking period jewellery discovered in the British Isles had close parallels in Scandinavia, scholars naturally turned towards Scandinavia for information and comparative data relating to this period of their history. Furthermore, as we have seen with the Viking Antiquities series some of the researchers were Scandinavians. Perhaps this was also in keeping with the times; consequently much of the jewellery research carried out in the United Kingdom has been largely circumstantial.
The isles of the North Atlantic have produced significantly less in terms of jewellery or artefact analysis, and the little that has come out of these areas, is also in keeping with this same approach observed elsewhere. Perhaps this is due to the fact that on these islands, archaeologists were forced to seek schooling abroad, often in Scandinavia. Many Icelandic archaeologists have been trained in Sweden, Norway or Denmark, and have reproduced this working style.

Jewellery typology is important; furthermore, it is as necessary component of the analysis of data, required for establishing the place of origin of certain artefacts. Without such writings my own task of analysing Icelandic jewellery would be complicated. Yet having offered over a hundred years of descriptive analysis as well as revised and up-dated chronologies is it not time to look beyond the artefact at the society which created it? Would it not be of use to the field of archaeology to understand the social dynamics behind jewellery? How was it used? What did it represent socially? Who had access to it? Can it be perceived as a social symbol representing something other than mere adornment?

A social analysis of jewellery is uncommon in Viking studies. Attempts have been carried out to conduct research regarding the use of certain types of jewellery. For example, Paterson (1997) mentioned above, attempted with the trefoil mounts of Iceland, Shetland and England to determine how these pieces of ornament were used in a practical manner, and more importantly how they were modified to suit the needs of the Norse settlers of these regions. Batey (1988) also sought to understand the use of the few copper-alloy bells discovered in Scotland as well as Iceland, and suggested they were components of either horse harness or simply that these bells were worn as charms (Batey, 1988: 215). The same could be said for Wilson (1983) and his study of bone pins from Shetland.
A few anthropological analyses were attempted with Viking period material. One of the oldest in this line of work comes from Ellis-Davidson in 1965 in an article dedicated to the social and symbolic use of Thor’s hammers during the Viking age. This article is discussed in Chapter 6 of this thesis.

Though not directly relating to jewellery, Burström (1993) in a short article looked for a cultural and anthropological explanation for the important number of silver hoards on the island of Gotland, a topic of much debate. The author saw these silver hoards in relation to the insufficiency of available agricultural land. In an attempt to keep farms undivided, only one child was allowed to inherit (Burström, 1993: 34). For those without land, they were provided with a dowry, which in turn gave them the possibility to marry (ibid.). Under such circumstances, where land was lacking, men who had gained fortune through Viking journeys could not easily buy land; silver could then have become an important commodity to establish oneself in society (Burström, 1993: 35). Burström sees the hoards as a prestige good, used as bride-wealth for those men who may not have been in a position to inherit land. Offering silver to prospective fathers-in-laws, may have been their only alternative to seeking a wife (ibid.). To quote the author:

"If silver was used as bridewealth, the primary function was fulfilled by the transaction bridewealth- bride. By obtaining the silver, the bridegroom had proved himself worthy of the bride, and the bride's kin had confirmed their status by receiving correct bridewealth. When then the transaction had been completed, the silver could be deposited onto the farm belonging to the bride's parents. There, its existence was a confirmation of the status of the kin group, the family and the farm" (Burström, 1993: 36).

More attempts to understand the social dynamics behind silver and hoarding in Viking society were undertaken by other authors such as, Vestergaard (1991), Dahlin Hauken (1991), Gaimster (1991), Samson (1991) and Härdh (1991) in the edited book Social Approaches to Viking Studies (1991). But hoards, though consisting of precious metals and often jewellery, are not
jewellery, and are not worn by their owners on a day to day basis with the same social concerns, nor do they convey the same social message. Hoards represent a different element of 'jewellery' one related to the economic dimensions of society.

One can safely conclude that a social and anthropological analysis of jewellery and its use anywhere in the Viking world is absent. A history of research on this topic has demonstrated that it is an area that does deserve attention. I propose to attempt such a study in this dissertation, focusing on the Icelandic context. What did jewellery mean to these people? How was it used? Who had access to it? Did everyone have access to the same jewellery? These are some of the questions I hope to answer.
CHAPTER 3
The theoretical framework of adornment theory and burial analysis

In this chapter, I will address the theoretical ideas relating to several important aspects of my thesis: the body, adornment (of which jewellery is a part) and how these two elements relate to burial analysis. The reasoning behind this approach is that much of the Icelandic jewellery analysed in this dissertation stems from a burial context, and it is through burial analysis that one can hope to arrive at some sort of a social interpretation. Furthermore, before embarking on a description of my research methodology these theoretical questions must be dealt with, as they have direct repercussions on how I have collected data and how this data was treated thereafter. However, before commencing I wish to bring up the very first premise of my thesis: jewellery as adornment and offer a definition which will help the reader to understand the ideas behind the subsequent sections in this chapter.

Jewellery as adornment

“Jewellery”, comes from the word “jewel” and is defined as follows in the Oxford Dictionary: “jewels collectively or as adornment”; jewels: “precious stone, or personal adornment containing jewels” (Oxford Pocket Dictionary, 1984). Thus, according to this source jewellery is, first and foremost, an element of adornment, worn on a person without necessarily bearing a functional purpose. But what defines adornment? And why do people go to such pains to adorn themselves with objects which appear do not cater to a basic human need for survival?
Adornment in general refers to the body and its intentional visual manipulation either through dress, three dimensional artefacts such as jewellery, or body decoration and modification either through body painting, tattooing, scarification, circumcision, cranial deformation and so on. Furthermore, adornment does not appear to satisfy a basic human need, such as a need for food or shelter. Yet, humans have universally, and throughout prehistory and time, invested in bodily adornment of all sorts, whether male or female, rich or poor, and regardless of the degree of complexity of societies (Polhemus and Procter, 1978: 11; Cordwell, 1979; Kann 1986: 7).

For the sake of the following discussions the terms "adornment", "dress", and "jewellery" will be considered as part of one social phenomenon and when using "adornment" it will be implied that jewellery is included.

The body and adornment theory

The body

One might ask why the analysis of the body is relevant to the study of jewellery and adornment? As I have just established, jewellery is adornment, forming part of a vast repertoire of symbols applied and incorporated onto the body. Behind all forms of adornment lie the body and its intentional manipulation. Furthermore, the social world which is the basis of most archaeological research and pursuits, is a world of dressed bodies (Entwistle, 2000: 6). These two areas are therefore, intricately connected and in most cultural settings: "dress in everyday life cannot be separated from the living, breathing, moving body it adorns" (Entwistle, 2000:9).
Studies on the body in anthropology, sociology and archaeology are becoming increasingly frequent and popular. This was not always the case, and the body was not always perceived as a significant element directly impacting the social world. Early theoretical approaches chose to look at it as a purely biological mechanism, according to Entwistle prioritising, as did Descartes, the mind and reason over the body and its biological functions (Entwistle, 2000: 13). By the same token, Entwistle argued that sociology chose to not look at the body as maker of meaning but more as a natural element rather than the intensely social dimension it has acquired today (ibid.). Anthropology was slightly better off and can claim several earlier studies conducted on the social role of the body in society such as: Mauss (1936), Levi-Strauss (1964, 1966, 1968), as well as Goffman (1971), and Douglas (1970, 1973, 1996) (Douglas, 1996: 69-74; Entwistle, 2000: 12-15). Today, the accepted stance in all three disciplines is to view the body as a socially constructed object (Entwistle, 2000: 12). More recent studies on the body include the works of Foucault (1976, 1977, 1979, 1980) who addressed the body and its relationship to power; Bourdieu (1979) who viewed the body as the bearer of social status (Entwistle, 2000: 13-17); in sociology Shilling (1999), Synnott (1997), and Turner (1991), and more recently relating to archaeology the compilation of articles edited by Rautman (2000).

One of the more significant and most cited studies on the body in anthropology are the works of Mary Douglas (1970, 1973, 1996). In *Natural Symbols* an alternate view of the body was addressed by this author who argued for the existence of two bodies: the physical and the social. Douglas felt that the physical body was always modified by the social body, and that the use of the body as social tool could itself be perceived as a natural tendency in all humans societies (Douglas, 1996: 69, 72). Furthermore, she argued that two social dynamics occurred with the social manipulation of the body:
"First the drive to achieve consonance in all levels of experience, produces concordance among means of expression, so that the use of the body is coordinated with other media. Second, controls exerted from the social system place limits on the use of the body as medium “ (Douglas, 1996: 71).

Of particular interest is the latter part of this statement. Through the interaction of the social onto the body, certain restricting behaviours and control are expressed on how the body is presented in society. She argued that body control itself was an expression of social control and through the analysis of the body one could gain insight into the social dynamics at work (Douglas, 1996: 74). What is relevant in Douglas’s theoretical argument, is the way the body can be used as an instrument encoding the beliefs, concerns, political thought, religious ideals of society, and through its analysis (which will involve as diverse studies as the study of posture, movement, behaviour, dress, etc.) one can gain insight into various social mechanisms. She developed this approach further and argued that two types of social control could be exercised on the body: strong control with high classification resulting from significant social hierarchy, as well as personal subordination to public patterns and control. This is expressed by condensed symbolic systems applied to the body (such as strict rules of conduct, body exposure, formal dress codes, etc); while weak control in society the other alternative would in turn reflect more diffuse symbols and expression on the body (Douglas, 1996: 78-79). The basis for Douglas’s approach is therefore: that “the physical body is a microcosm of society” (Douglas, 1996: 76) and is transformed into a “social” body.

Entwistle (2000), Shilling (1999) and Synnott (1997) also embraced some of the basic premises put forth by Douglas: that the body is at the heart of social life and through its manipulation messages about social ideals are vehicled. Synnott, with reference to Douglas’s theory stated:

“Every natural symbol derived from the body carries a social meaning and every culture makes its own selection from the range of body symbolisms” (Synnott, 1997: 230).
It is precisely what this dissertation will attempt to do, using the body and its symbols as a mechanism to decipher the social dynamics in society. But let us now turn to adornment theory, as dress and adornment have been granted their own theoretical framework deeply inspired and following recent studies on the body.

**Adornment theory**

As we have seen through the writings of Douglas, the manipulation of the body by society offers visual clues about the social structure and dynamics of a given society. Dress and adornment are one of several mechanisms affecting the treatment of the body for social purposes.

Entwistle, in her recent study entitled *The Fashioned Body* (2000), offers one of the more thorough theoretical studies on dress and adornment in modern society. She pays particular attention to the question of fashion and the fashion industry. While not relevant to the present study, she does offer one of the more encompassing summaries of history of research in this field, and presents the ongoing dilemma regarding terminology.

Anthropology she argued is concerned with "dress" and "adornment", while sociology prefers the term "fashion" (Entwistle, 2000:42). The main difference between these disciplines is that Anthropology has searched for a more universal and all encompassing term applicable cross-culturally (Polhemus and Procter, 1978: 9; Entwistle, 2000: 43). Roach and Eicher (1965) defined these terms further and argued that "dress" referred to the act and process of covering while "adornment" stressed the aesthetic aspect of the body (Roach and Eicher, 1965:1; Entwistle, 2000:42). As stated above I will be adopting a more anthropological approach and use the terms dress and adornment interchangeably to refer to all modifications done to the body.
The contrast between "dress" and "fashion" will be addressed later on in this section, but let us start with past and more recent theories of adornment in order to isolate that which is best suited for this line of research.

**Past theories of dress and adornment**

Various hypotheses have been offered to explain the intrinsic need for adornment in human populations. In an attempt to arrive at a more encompassing explanation, Schwarz (1979) and Entwistle (2000), offered an overview of several of these earlier hypotheses, the most obvious, being protection from the environment.

Protection from the environment

While responding to environmental conditions, humans have sought protection from the elements through the creation of protective clothing (Schwarz, 1979: 25; Entwistle, 2000: 57). While this explanation addresses clothing, it fails to encompass the need for adornment, and given the degree of cultural variability, is unsatisfactory in certain cultural contexts (Entwistle, 2000: 57). When Gabriel Sagard arrived in New France, Canada in his attempt to convert the native Indian populations to Christianity he was shocked by their nudity. The group in question was decorated with feather pendants and hair adornment. Protection from the cold seemed to be a secondary concern and they only wrapped their bodies in furs in the case of extreme cold and long hunting expeditions (Sagard, 1990: 130). This is somewhat surprising given the levels of cold reached during the winter months of Eastern Canada, and thus, indicates that the need for protection is, as are many aspects of dress and adornment, intricately tied in with cultural attitudes. Entwistle offered a more contemporary example of dress behaviour in the west where skimpy clothing is worn despite freezing temperatures (Entwistle, 2000: 57).
Protection from supernatural forces
The protection from supernatural forces is another hypothesis proposed for the need for adornment (Schwarz, 1979: 25). According to Schwarz, several scholars have argued that dress and adornment arose from man's need to defend himself from malevolent spiritual powers which might cause illness, death or other misfortunes (ibid.). Tattooing in certain regions of Polynesia might be perceived in this manner by protecting the tattooed subject from subsidiary beings and spirits (Gell, 1996: 8), However, it does more than that, and is an integral part of a complex social and political framework (ibid.). While protection from the spiritual world may be part of the social dynamics behind adornment it is only part of the picture.

The attraction and modesty hypotheses
Some have suggested that adornment may be related to issues of modesty, beauty or expressions of sexuality (Polhemus and Procter, 1978:10; Entwistle, 2000:58). Again, given the degree of cross-cultural variability within human populations, what might appear as “modest”, or sexually pleasing in one cultural context may signify the contrary in another (Polhemus and Procter, 1978:10; Entwistle, 2000:58). One need only look at the example of the Masai woman, whose genitals are briefly covered with a leather skirt, but whose ears are adorned with beaded earflaps indicating her married status. To appear without the earrings would be far more shameful than appearing without the skirt (Polhemus & Procter, 1978; Fisher, 1984: 27). The same is true for the Caduveo Indians as described by Lévi Strauss (1955), whose women intentionally paint their faces with abstract and intricate motifs with the intention of accentuating their erotic appeal (Levi Strauss, 1955: 214). Modesty and sexual expression vary from one culture to the next and are only one facet of adornment, but they are aspects of culture and the belief system of a social group.
The nature/culture theory

According to the nature culture theory, the dichotomy between culture and nature is stressed (ref.). Nature is thought to convey notions of "wild", "uncontrolled", "beastly" "dangerous" etc. and are in opposition with notions of "civilised" and "controlled", "safe" (Levi-Strauss, 1955: 214). Claude Levi-Strauss (1955), argued in favour of the nature/culture approach with reference to the Caduveo Indians of Brazil. As mentioned above, the Caduveo adopted elaborate facial painting in an attempt to distinguish themselves from nature according to this author (ibid.). When the European missionaries encountered the Caduveo, they were said to have commented on their seeming predilection for extensive facial painting to the detriment of more practical survival related activities (such as fishing and hunting). When they asked "why are you so stupid?" The Indians replied that according to their beliefs, the missionaries, with their lack of facial paintings were closer to animals (ibid.):

"Il fallait être peint pour être homme: celui qui restait à l'état de nature ne se distinguait pas de la brute" (ibid.).

Schwarz argued along these same lines, and saw adornment as an integral part of a dichotomous relationship between nature/ man and adornment/ culture. In an attempt to offer an anthropology of adornment, he suggested that one should view the social mechanisms of adornment and clothing in the light of man's image of himself and in contrast with the world around him, i.e.: his environment (Schwarz, 1979: 41).

While these theoretical approaches are interesting and offer a partial explanation for the universality of dress and adornment, they do not respond to all cultural settings. If the distinction from nature is at the root of adornment behaviour, how does one explain societies which base their world view, cosmology and religion around nature and the animal world? For such cultures the main focus is on man's interdependence with nature and interaction with it. This is the case with Native American cultures that
consider animals to be active participants in their daily existence. Within such a belief system, nature is not in opposition with culture but an integral part of it, and adornment is more than likely to enhance this connection rather than separate it.

**Recent theories of adornment, and adornment as social expression, group affiliation and identity**

More recent studies on adornment theory have been conducted in the same theoretical light as studies on the body. Of interest to the present discussion are the works of anthropologists, Polhemus and Procter (1978), Barnes and Eicher (1992); Roach and Eicher (eds.) (1965). Eicher (1995, 1999) recently edited a compilation of articles entitled *Dress and Ethnicity*, looking at the symbolism of dress in different cultural settings. Other recent publications include the edited book by Linda B. Arthur (2000) addressing questions of religious dress, from a cross-cultural perspective.

Most contemporary approaches agree that dress and adornment are symbolic expression of society, as described above with reference to the body. Entwistle (2000) proposed in her analysis of fashion, that adornment stems from a universal human need to communicate with symbols (Entwistle, 2000: 58). But along with the need to communicate with symbols is the need to project identity (Arthur, 2000: 2). Adornment and dress address one of the most fundamental dimensions of the human experience, the question of "belonging" (Isaacs, 1975: 35). According to Issacs (1975):

"An individual belongs to his basic group in the deepest and most literal sense that here he is not alone, which is what all but a very few human being most fear to be (Isaacs, 1975: 35)."

The fear of not belonging may be equally as important as the need to communicate with symbols, as stipulated by Entwistle. This concept has lead some anthropologists to conclude that dress, and adornment (of which
jewellery is a part) is a need to express individuality by stressing unique physical features on one hand, and a means by which human societies can display information regarding group affiliation, values and standards of the group on the other (Horrowitz, 1975; Isaacs, 1975; Polhemus & Procter, 1978: 11; Kann, 1986, Roach Higgins and Eicher, 1992; Cannon, 1998: 24; Arthur, 2000: 2). Adornment, therefore, serves the purpose of communication and personal expression, as well as group identification and the need to differentiate oneself and one's group from others (Polhemus & Procter, 1978: 11).

The latter two explanations appear contradictory, humans adorn themselves because they feel the need to belong to a given group, which by the same token chooses to differentiate itself from a larger group. This dichotomous situation has been the focus of some theoretical research done on issues of identity. People who subscribe to a cultural group will, to quote Barth (1969), "share a common culture, and interconnected differences that distinguish each such discrete culture from all others" (Barth, 1996: 294). For this author, social group boundaries are established which help maintain this sense of cultural unity (ibid.). Dress and adornment can be considered as a part of these boundaries that encourage group affiliation and distinction.

Isaacs (1975) identified three mechanisms by which group identity is expressed: through the body, the land, and the name. The body is said to be most palpable element of identity and that participation with a social group will inevitably involve the human body in some form or another (Issacs, 1975; Polhemus & Procter, 1978: 20). One of the many ways of manipulating the body for the sake of identity, is through its visual appearance, through dress and adornment, as well as through behaviour which may have some direct repercussion on body image (gestures etc.) (Isaacs, 1975: 36-43). The unadorned body lacks distinctive physical features to mark it apart from
others, by deliberately altering it humans are successful at stating who belongs and who does not belong to the group (ibid.).

Gell (1996) who looked at Polynesian tattooing further discussed the deliberate modification of the body for identity purposes. To offer a better understanding of the social significance of tattooing, Gell referred to the works of Turner (1980); Strathern (1979) and finally Anzieu (1989). For these authors the skin and body lie between a person's "inside world" and the "outside world" around them (Gell, 1996: 30):

"...and hence the skin continually communicates the external world to the internal one, and the internal one to the external one. This traffic, mediated by the skin, is the formative principle of the ego's basic sense of selfhood in the world" (ibid.).

Shilling (1999), argued that because of this internal-external process the body is manipulated by society and affected by social processes (Shilling, 1999:133).

Horowitz(1975), referred to these mechanism as "criteria of identity" on which judgements of collective likeness and unlikeness are based (Horowitz, 1975:119) again, his criteria for identity involved the physical body, names (language), as well as the collective experience which is apparent in a collective history (Horowitz, 1975: 120-121).

Roach and Eicher (1979), stipulated that jewellery/adornment defines one's social role and worth, it states economic status, political affiliation, and magico-religious belief and belonging. (Roach & Eicher, 1979). These social expressions, such as status/hierarchy, magic and religion, gender, modesty, as well as protection from environmental conditions, are secondary expressions of the more profound need for identity. They are activities constructed by societies "through provisions of shared meaning systems" (Shilling, 199: 176). But they are triggered by the greater need of identifying
with a given group, and distinguishing ones group from all others. Therefore, based on the present discussion, dress and adornment come up frequently as visual cues which promote group identity on one hand, and by stressing social distinction from other groups, on the other.

**Further distinctions of dress and adornment**

While current research in the social sciences is tackling questions of adornment theory and appears to agree with the theoretical explanation provided above, dissension exists in this field regarding dress and adornment in “traditional” societies, versus dress and adornment in the modern world.

Barnes and Eicher (1992) argued that no distinction exists between the function of dress and adornment in traditional societies compared with that of modern ones. They do not acknowledge the phenomenon of “fashion” as defined by western modernity (Entwistle, 2000: 43). Furthermore, they argue that it is an error for researchers to assume that dress in societies with “less complex technologies” are not subject to fashion and dress change (Barnes, and Eicher, 1992: 23; Entwistle, 2000: 43-44). Others such as Polhemus and Procter argue differently. For them what we understand as “fashion” in contemporary western society has little in common with forms of dress used in traditional non-industrial societies. They both cater to the general needs discussed above, yet they are by their very nature opposing. (Polhemus and Procter, 1978: 13; Entwistle, 2000:44). Polhemus and Procter (1978) have labelled them as “fashion” and “anti-fashion”, Edward Sapir (1931) as “fashion” and “custom”. The main distinction between these two phenomenon is one of time:

"Fashion and anti-fashion are based upon and project alternative concepts and models of time." (Polhemus& Procter, 1978: 13).

While fashion tends to focus on social mobility and rapid change, anti-fashion or custom tends to promote continuity, and the maintenance of the status
quo (ibid.). Furthermore, with fashion there is a certain fluidity of the social structure that is lacking in anti-fashion (ibid.). Sapir (1931) identified anti-fashion or custom as being relatively permanent forms of social behaviour (Sapir, 1931: 139). For this author the distinction between the two was summarised as follows:

"...fashion is custom in the guise of departure from custom." (Sapir, 1931: 140)

Entwistle stated that despite Barnes and Eicher's theoretical framework, there is general consensus regarding the definitions proposed by Polhemus and Procter (1978). One significant feature of fashion is its ongoing change. This is not to say that anti-fashion (or traditional dress) is unchanging, rather traditional dress for these authors changes slowly over greater time spans and are frequently imperceptible to the members of a given society (Sapir, 1931: 139; Entwistle, 2000: 46).

Anti-fashion conveys messages of social stability, ideology and the transmission of cultural stability from one generation to the next (Polhemus & Procter, 1978: 15; Isaacs, 1978: 43). To a certain extent, social and stylistic change, even if it does occur, poses a threat to the traditional identity. To counteract this threat, some societies opt for extreme modes of adornment in their anti-fashion. It is from this context that permanent adornment arises and proves the most efficient way of affirming group identity and affiliation to a distinct social and cultural group (ibid.)

While some of these mechanisms are permanent, the effects of other forms of anti-fashion adornment are visually equally as effective. For example, the monk's tonsure, or the long hair of the Sikhs convey similar social messages (Isaacs, 1978: 43). For the present discussion, Viking jewellery is a distinct part of Viking dress and can be labelled "Viking adornment". The jewellery itself forms part of the ensemble, it cannot be disassociated from clothing, or
from hair style and the jewellery along with these other aspects should be looked at as "Viking adornment". Viking adornment falls under the heading of anti-fashion. It is the product of a traditional society. Like all most traditional societies, Viking anti-fashion adornment promotes group identity and affiliation as well as cultural distinction. It conveys a sense of social stability to its members, as well as the values and beliefs of the community. It allows its members to identify themselves with each other and express to the world where they belong. If adornment and dress codes are violated, they in turn may lead to being ostracised by the group (Polhemus & Procter, 1978: 20-21).

Death and burial data

The social implications of death

Death is a disrupting event, both to individuals and to the communities in which they live. The very nature of death threatens the basic assumptions on which societies are founded and threatens the more fundamental aspects of society as well as mechanisms put forth in the social processes. Death is, therefore, a social problem, and requires the re-ordering of social relationships (Shilling, 1999:179; Samson, 1987: 124, Parker Pearson, 1999: 22).

In traditional societies such as Scandinavian society of the Viking Age, identities were intricately tied up with the group and were constructed automatically through various practices, beliefs and diverse social criteria such as discussed in previous sections of this chapter. Death in this social context is particularly a group problem rather than an individual one, and the loss is felt on the "social body" rather than on the individual one (Shilling, 1999:188). Faced with this social phenomenon, the society responds by
means of ritual and through a communal response (ibid.). One such mechanism is the belief in the survival of the spirit and the belief in the afterlife. Through the belief in the continuity of the "soul", a sense of immortality is conveyed to the living (Morin, 1970:155).

According to Morin (1970), part of the threat to the group's identity is connected with the decomposition phase of the body, and the ritual or communal responses are determined by the concern with decomposition. According to this author, the decomposing of a body places the dead in an "impure" state. It is half way between the world of the living and that of the dead, the body and "spirit" are still combined one with the other, and the separation process is not finalised:

"..mais universellement, la décomposition est la période terrible où le corps et le double sont encore mêlés l'un à l'autre, où tout n'est pas accompli, où plane une sourde menace vampirique" (Morin, 1970:156).

The preoccupation with the "impure", therefore, "dangerous body", and the avoidance of the decomposition phase are at the root of all burial practices, according to Morin (ibid.). Processes that accelerate this phase, are mummification, cannibalism, as well as cremation (ibid.) The idea is therefore, to liberate the spirit successfully to insure its successful journey to the otherworld, and by the same token protect the living from the impurity of death as well as the spirit's potential dissatisfaction (ibid.). A dissatisfied "soul", one which has not undergone adequate ritual or communal response, may choose to return to haunt the living, and by the same token "contaminate" their lives with death (Morin, 1970).

In Norse mythology the idea of the afterlife is a prevalent feature and the fear of the "spirit" haunting the living is a common element in the saga literature (Boyer, 1994:25). Death in Scandinavian mythology of the Viking Age, involves the passage of the dead spirit to the otherworld, a journey towards another life, and should be accompanied in his/her voyage by various
implements placed in the grave (Mathey-Nowenstein, 1990: 2). The concept of taking a voyage is not unique to the Scandinavians, and according to Morin predates notions of "afterlife" (Morin, 1970: 162). The voyage is associated with the passage, as well as with notions of presence and absence (ibid.). In the Scandinavian context, the dead are buried in proximity to the living, because despite their physical absence, they continue to participate as members of the given clan or kin group (Mathey-Nowenstein, 1990: 2, Vesteinsson, 1998: 23). However, when dissatisfied with his/her fate they can return from the land of the dead. This being is called draugr in the saga literature and is, without being a ghost, a physical being usually ill-intended who inhabits the burial mound, and when appears, bears traces of his/her 'dead' existence (is covered in earth, frozen hair etc) (Mathey-Nowenstein, 1990; Boyer, 1994: 25).

Death, therefore, threatens the group's collective identity. Moreover, death provokes a response from the community to counteract the threat. These responses are expressed in the form of ritual, as well as physical manifestations and practices. They involve the outward and inward structure and appearance of the grave, its contents, the preparation of the dead body, as well as ritual and belief surrounding the death, the burial and period after the burial.

Burial analysis, approach and framework

The study of burial and mortuary display in archaeology has been characterised by the acceptance of certain assumptions about the past. For example, graves have been thought of as among the most valuable and reliable sources of information about past societies, as direct reflections of society, and as "mirrors of life" (Härke, 1997: 19). Furthermore, archaeologists have assumed that people's social position in life is mirrored
directly in death and burial display, and therefore, that elaborate mortuary practice equates high social status (Samson, 1987: 121; Cannon, 1989: 437, Parker Pearson, 1999). The presence or absence of grave goods has been used as a clear indication that there was a belief in the afterlife; and in the case of Western Europe, when dealing with the presence of grave goods, as a proof that one is faced with a "pagan" burial as opposed to a Christian one (Samson, 1987: 122). While much archaeological analysis has been carried out, based on these assumptions, recent attempts have been made to question them. Some of these statements are at fault for assuming too much about societies of which little is known. A more cautious approach is required when addressing burial data.

Burial data is not necessarily a faithful and reliable source of information about the past, and does not always offer information about all levels of society. It is at best, an indirect reflection (Härke, 1997: 21). Work done on ethnoarchaeological observations indicate that only certain aspects of society are reflected in mortuary practice, and that the view presented is incomplete, and fragmentary (ibid.). This discrepancy is apparent, on two levels: on one hand, death and burial, involves the intentional manifestations from a given community, and this manifestation is not expressed exclusively in the form which archaeologist perceive, i.e. the physical elements of the burial itself. Death involves a certain degree of ritual which is evoked at death and even sometimes before, continues throughout the funeral, and carries on well after it (Härke, 1997: 22; Samson, 1987: 124, Parker Pearson, 1999:22). Most of the ritual dimension is absent from the physical evidence and, therefore, difficult for the archaeologist to assess (ibid.). On the other hand, the burial arrangement itself is not assembled and prepared by the dead but by the living, and the choices made are not objective representations of society but very selective ones chosen by living relatives and friends (Härke, 1997: 23). Moreover, significant burial display may not automatically imply high status, but will depend very much on what the living choose to display. Aubrey
Cannon, in 1989 demonstrated through the analysis of historical mortuary behaviour from the Victorian era to modern day England, that progressive restraint in mortuary practice came to indicate higher status than the latter (Cannon, 1989: 439). This behaviour has prevailed in modern Western society today, and intentional moderation is considered as more appropriate behaviour than elaborate funeral display.

According to Samson (1987), if the buriers of the dead wish to state information about the deceased's life and position in society, then this is likely to have been done on a more symbolic level:

"Material objects can best symbolise social roles which are readily classified by society. Thus male/female; or age grouping infant/child/adolescent/adult/elderly; or marriage status unmarried/married/widowed present the least ambiguous social statuses and are theoretically the most prone to symbolic representation. Profession, institutionalised rank, or social status might also be represented. Here are just a few examples: warrior, trader, jeweller, smith; or king, duke, bishop, priest, or free/unfree (Samson, 1987: 122).

In the same vein, he added that the survivors are the main characters in the burial ceremony and arrangement of the display, and decisions as to how to arrange the dead were based on local custom, as well as how these people interpreted the custom (Samson, 1987: 123, Parker Pearson, 1999: 3).

The final element, which deserves attention, is the question of Christian versus "pagan" burial and the belief in the afterlife. According to Parker Pearson, the presence of grave-goods in a burial assemblage cannot necessarily be taken to mean that the deceased believed in the afterlife (Parker Pearson, 1999:21). Christians also believe in the afterlife and for the most part dispense with grave goods (Samson, 1987: 122). To overcome this difficult issue, Samson proposes a more encompassing method whereby the archaeologist uses all forms of possible data: archaeological, documentary etc in order to establish a sense of meaning to the burial as well as its religious inclination (ibid.).
Jewellery, adornment theory, and burial analysis applied to the Icelandic context

The various theoretical approaches discussed in this chapter will be applied to the analysis of Icelandic Viking jewellery in this doctoral thesis. The basis of my theoretical approach is first and foremost anthropological. Following Douglas, I adhere to the belief that the body is utilised and manipulated by society to express certain social values, ideas and concerns. The body does not exist alone as a biological entity. It is an intensely symbolic resource through which society channels its messages. It is a tool for communication, and like Douglas, I support that societies with significant levels of control and social hierarchy will go to greater efforts to impose on the body, more strict rules of conduct, and stricter rules of visual presentation. This control will affect all aspects of the body: its movement, its posture, gesture, dress, adornment etc. Like Douglas and others after her, I believe that by understanding the bodies visual clues one can come to understand the society behind it.

Adornment is just one of society's tools used to communicate its ideology. For this reason, all forms of adornment cater to the same general need and should be considered alike. Whether bodies are tattooed, scared, dressed, painted, adorned with jewellery the basic idea is the same: social expression, and communication through symbols. Furthermore, in this dissertation I have adopted the most current of theories on adornment and the body. While jewellery, dress and adornment do reflect the cultural and social processes and cater to a basic human need to communicate with symbols, more importantly they respond to a need to express individuality on one hand, and group affiliation and identity on the other.
Adornment and dress are intricately tied in with questions of identity. They constitute part of the mechanisms used by societies to convey group affiliation and group distinction. In the Norse context, issues of identity are further enhanced by the fact that we are faced with the products of a traditional society, and dress/adornment will respond closer to the mechanisms of "anti-fashion as defined by Polhemus and Procter (1978), enhancing cultural continuity and relative stability. Identity is a complex phenomenon affecting many different facets of society. One does not possess one identity. Identity can be cultural, it can be social, it can encompass social status, religious affiliation, gender identity etc. The social components of identity are what lead to, and ultimately what reflect visual symbols of cultural identity through dress and adornment on the body. The process can be summarised as follows:

**Internal social mechanisms**

\[ \text{Body} \leftrightarrow \text{Internal social/cultural processes} \]

\[ \downarrow \]

Adornment/dress

\[ \downarrow \]

Need for group affiliation $\leftrightarrow$ Need for group distinction

\[ \downarrow \]

Religion/magic $\downarrow$ Gender $\downarrow$ Status/wealth

\[ \downarrow \]

World view $\downarrow$ Modesty $\downarrow$ Social rank/hierarchy

Religious belief $\downarrow$ Sexuality $\downarrow$ Social strata

Gender roles

\[ \downarrow \]

External manifestations (dress behaviour etc.) often perceived by other groups as "culture"

**Table 1:** Diagram illustrating how adornment functions socially.
How this theoretical framework can be applied to burial archaeology is perhaps where lies the originality of the approach. Certain recent studies in theoretical archaeology have focused on the body and its analysis through the archaeological record. Notably the works of Meskell (1998, 2000); Knapp and Meskell (1997), as well as the edited books by Montserrat (1998) and Rautman (2000). There are few articles specifically relating to dress and adornment but the field is still young.

Death, we have seen, threatens the social body. It disrupts the group's collective identity. It has direct repercussions on how society will address the social and biological body. While burial data may be fragmentary offering only selected glances into the past, and while it is not the dead that bury themselves but their living kin, burial data is a first hand account of how people perceived themselves and wished to depict themselves to others. Through death, through material culture and jewellery I hope to gain access to the society in question and to some of its expressions of social and cultural identity. Like Mary Douglas I propose to use dress and adornment in a burial setting to offer clues as to the social processes at work in Early Iceland. This has never been applied to this part of the world, nor has Viking jewellery ever been considered in this light. My approach is eclectic, taping into the fields of anthropology and sociology in order to subject this burial data to a different and new line of reasoning, in the hope that it might offer a different outlook of the social reality of early Iceland.
CHAPTER 4
Research Methodology

The analysis in this dissertation has for objective a social study of jewellery, choosing to regard jewellery as a symbol of a given society's values and ideology. In this chapter, I will explain how data was collected, in Iceland, Denmark, Scotland, and how this data was subsequently treated in a relational database so as to adhere to the theoretical approach outlined in the previous chapter. Furthermore, additional data, which was used to support and enhance the information obtained from the jewellery, is presented at the end of this chapter.

Part 1. Data collection

Artefact analysis

Definition of Jewellery

Jewellery, as discussed in Chapter 3, is an integral part of dress and adornment and functions socially along the same principals as others forms of adornment. Based on this approach and throughout this dissertation, jewellery will be defined as any three-dimensional supplementary artefact that serves the purpose of adorning the body. In practical terms what this signifies is that jewellery will be given a much broader scope than is generally assumed. Items generally not considered as jewellery (such as elements of weaponry) will be included under the heading of "jewellery". From a social angle the symbolic meaning of a brooch is similar to that of a
decorative sword hilt, and as they are both intrinsic elements of adornment, should be considered together as an ensemble.

Based on this notion, the following items have been recorded as Viking jewellery: beads, bells, finger rings, bracelets, coins used as pendants, oval brooches, penannular brooches, ringed pins, round brooches, tongue shaped brooches, trefoil brooches, pendants, Christian crosses, Thor's hammers, as well as decorative metal pieces to be sewn on garments, or used as buttons. Among less typical forms of jewellery: sword chapes, sword hilts, belt buckles, decorative spearheads.

Materials which are used to make jewellery vary greatly according to different cultural environments, what human populations value or consider as “precious”, as well as what materials are available. I have not discriminated with reference to materials and have recorded jewellery made from a variety of substances, such as: gold, silver, bronze, brass, iron, glass, amber, carnelian, rock crystal, jet, shale, bone, antler, shell,

Data Collection, National Museum of Iceland

The research and data collection for this PhD began in early February 1998. Following a brief visit to Iceland in the summer of 1997, I was offered a job as an archaeological illustrator by the National Museum of Iceland and the Institute of Archaeology of Iceland. My task was to illustrate as many Viking period artefacts from burials as possible for the re-publication of Kuml og Haugfé by Kristján Eldjárn (1956). It was thought that while illustrating I could also record jewellery for my PhD thesis and familiarise myself with Viking period material culture. My contract extended from February 1st 1998 to June 5th of the same year, and during this period I recorded the majority of known Icelandic Viking period jewellery. I returned to Iceland a year later in
March 1999, for the duration of one month, to complete the contract, and finalise my own data collection.

Prior to my departure for Iceland in 1998, I was obliged to devise an efficient and adequate method for recording jewellery. As a starting point, I based my methodological approach on the threefold division of jewellery proposed by Liu and Wataghani (1975): that is jewellery as a social emblem, jewellery as an economic investment and jewellery as a magical or religious symbol (Liu and Watagani, 1975:35). At the time, this classification appeared to encompass most of the questions I had regarding the social role of Viking Age jewellery in Iceland. These three broad divisions incited further interrogations, and constituted the first step of my data collection.

Jewellery as a social emblem:
Was jewellery used as a social identifier of status and prestige?
Was jewellery used to express power?
Who wore jewellery?
Did chieftains wear the same jewellery as everyone else?
Were there certain divisions in society who advertised their group affiliation by wearing certain types of jewellery?
Did farmers wear and have access to jewellery?
Did slaves?
What characterised men's and women's jewellery?

Jewellery and economic investment.
Was jewellery used to express wealth in society?
Was jewellery traded?
Was it exported?
Imported?
Was it mass-produced?
Was jewellery given in gifts?
Was jewellery hoarded?
What was the social value of silver?

Jewellery as a religious or magical symbol.  
Was there religious jewellery?  
What kind of amulets existed?  
Was there jewellery that served as protection from supernatural entities?  
Were spells carved on jewellery?  
How was jewellery used in death?  
How was it used in birth?  
How was it used in marriage?  
How was it used in brotherhood rites?  
Was there a magical value attributed to silver, to bronze, to gold?

Having established what questions need to be asked, the next stage involved extracting this information from the jewellery. How does one arrive at the answers to these questions by analysing jewellery?

Giving the process some thought, I realised that the first part of my analysis would inevitably be a descriptive one, and that any social interpretation would follow subsequently. Furthermore, I realised that the social interpretation, for it to take place, would require each artefact’s archaeological context. For my immediate needs for a descriptive record, I devised a form (see below) which was designed to record as much visible information as possible: museum number, place of origin, measurements, materials used in the fabrication of the piece, date, techniques, quality of workmanship, typology and so on. I also allowed space for my own comments and observations.
Jewellery analysis form:

Jewellery Analysis Form1: Description of Jewellery.
NATIONAL MUSEUM OF ICELAND.

Description.

1-Name of item.
1. Finger ring
2. Bracelet
3. Pendant
4. Pendant with silver coins
5. Pendant with beads
6. Silver chain
7. Amulet, pre-Christian
8. Thor's hammer
9. Christian cross
10. Amulet, Christian
11. Belt buckle
12. Oval brooch
13. Penannular brooch
14. Ringheaded brooch
15. Round brooch
16. Tongue shaped brooch
17. Button
18. Bells
19. Earring
20. Diadem
21. Ankle bracelet
22. Sword chape
23. Sword hilt
24. Shield boss
25. Decorative knife
26. Other (specify)
27. Unknown

2-Dimensions.

3-Date of piece.
1. 9th Century
2. 10th Century
3. 11th Century

4-Materials used.
1. Silver
2. Bronze
3. Copper
4. Gold
5. Pewter
6. Amber
7. Ivory
8. Bone
9. Crystal
10. Jet
11. Glass
12. Glass (enamel)
13. Other (specify)
14. Combination materials (specify)
15. Uncertain

Function and Fabrication.

5- Function.
1. Decorative
2. Utilitarian
3. Decorative and utilitarian
4. Uncertain

6- Fabrication technique.
1. Lost wax
2. Filigree
3. Granulation
4. Niello
5. Repoussé
6. Cloisonné
7. Chasing (engraving)
8. Stamping, punching
9. Inlay (wire)
10. Encrustation (plate)
11. Twisted wire
12. Gilding
13. Combination (specify)
14. Other (specify)
15. Unknown

7- Construction (brief description).
1. Local
2. Imported
3. Unknown

8- Quality of workmanship.
1. Fine
2. Average
3. Coarse

9- Design.
1. Style III, or Late Vendel (700-800)
2. Osberg (800-875)
3. Borre (850-950)
4. Jelling (900-970)
5. Marnman (960-1020)
6. Ringerike (1000-1060)
7. Urnes (1050-1130)
8. Uncertain

In the creation of this analysis sheet I used various sources available.
I used the small finds numbering system used by each respective museum. Each piece was measured, and I allowed for length, width, height (when applicable), as well as thickness of the metal.

Techniques which are listed on the analysis form are taken from my own experience making jewellery as well as sources such as Oppi Untracht's (1982) jewellers manual entitled *Jewellery, Concepts and Techniques*. I also used any sources written on Viking period metal-working techniques such as, Duczko's (1985) work from Birka on the filigree and granulation techniques of the Viking period, as well as Brinch Madsen's (1984) analysis of oval brooch production from Ribe. While I allowed for individual techniques such as casting, chasing, repoussé, or cloisonné, most techniques are combined (for example, it is unlikely that casting will be used alone, but in combination with gilding, chasing and possibly other techniques) I, therefore, needed to make allowance for such circumstances. I have for this reason allowed for a "combination" option on the analysis form.

In number 7, I allowed for my own interpretation with regards to the place of origin of the piece, labelled as "construction" on the analysis sheet. The options to choose from were: local, imported, or unknown. This category was intended for my own ideas, rather than concrete evidence. This was later rectified in the database design.


For the archaeological contexts of each artefact I devised a similar analysis sheet (see below) which would enable me to record as much information as
possible. Therefore, jewellery from a burial would need categories pertaining to the sex of individuals, their age, accompanying grave goods, if they were buried alone or in the company of other people, and if the grave was an isolated burial or part of a grave field. I would also have to take into account the presence or absence of animals in the burial, the positioning of the body, and so on. I devised separate categories for stray finds attempting to allow for a variety of non-mortuary contexts such as farms, and church sites etc.

Jewellery Analysis Form 1: Archaeological Context.
NATIONAL MUSEUM OF ICELAND.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Location.</td>
<td></td>
</tr>
<tr>
<td>11-Site.</td>
<td></td>
</tr>
<tr>
<td>12-Trench/ Section.</td>
<td></td>
</tr>
<tr>
<td>13-Level.</td>
<td></td>
</tr>
<tr>
<td>14-Depth.</td>
<td></td>
</tr>
<tr>
<td>15- Context of find.</td>
<td></td>
</tr>
<tr>
<td>1. Grave</td>
<td></td>
</tr>
<tr>
<td>2. Stray Find</td>
<td></td>
</tr>
<tr>
<td>3. Unknown</td>
<td></td>
</tr>
<tr>
<td>16-Grave.</td>
<td></td>
</tr>
<tr>
<td>1. Inhumation grave</td>
<td></td>
</tr>
<tr>
<td>2. Inhumation boat grave</td>
<td></td>
</tr>
<tr>
<td>3. Cremation</td>
<td></td>
</tr>
<tr>
<td>17-Grave distribution.</td>
<td></td>
</tr>
<tr>
<td>1. Isolated grave</td>
<td></td>
</tr>
<tr>
<td>2. Grouped</td>
<td></td>
</tr>
<tr>
<td>3. Unknown</td>
<td></td>
</tr>
<tr>
<td>18-Nature of grave.</td>
<td></td>
</tr>
<tr>
<td>1. Male grave</td>
<td></td>
</tr>
<tr>
<td>2. Female Grave</td>
<td></td>
</tr>
<tr>
<td>3. Double male+male grave</td>
<td></td>
</tr>
<tr>
<td>4. Double male+female grave</td>
<td></td>
</tr>
<tr>
<td>5. Double female+female grave</td>
<td></td>
</tr>
<tr>
<td>6. Unidentifiable</td>
<td></td>
</tr>
<tr>
<td>19-Position of grave (head facing).</td>
<td></td>
</tr>
<tr>
<td>1. East-west</td>
<td></td>
</tr>
<tr>
<td>2. West-east</td>
<td></td>
</tr>
<tr>
<td>3. North-south</td>
<td></td>
</tr>
<tr>
<td>4. South-north</td>
<td></td>
</tr>
<tr>
<td>5. Other (specify)</td>
<td></td>
</tr>
<tr>
<td>6. Unknown</td>
<td></td>
</tr>
<tr>
<td>20-Dimensions of grave.</td>
<td></td>
</tr>
<tr>
<td>21-Sex of skeleton.</td>
<td></td>
</tr>
<tr>
<td>1. Male</td>
<td></td>
</tr>
<tr>
<td>2. Female</td>
<td></td>
</tr>
<tr>
<td>3. Unidentifiable</td>
<td></td>
</tr>
<tr>
<td>22-Estimated age of individual.</td>
<td></td>
</tr>
<tr>
<td>1.0 &gt;12</td>
<td></td>
</tr>
</tbody>
</table>
2.12 > 20
3.20 > 30
4. 30 > 40
5. 40 +
6. Unknown
23- Non-human faunal remains.
   1. Horses
   2. Dogs
   3. Cows
   4. Sheep
   5. Pig
   6. Fish
   7. Fowl
   8. Other (specify)
   9. Combination (specify)
   10. Unknown
24- Floral remains.
25- Number of objects in grave.
   1. 0 > 5
   2. 5 > 10
   3. 10 > +
   4. Unknown
26- Grave goods: Artefacts.
   1. Arrow heads
   2. Bows (remains)
   3. Swords
   4. Spears
   5. Knives
   6. Shield/shield bosses
   7. Axes
   8. Sword chapes
   10. Gaming pieces
   11. Dice
   12. Figurines
   13. Spindle whorls
   14. Loom weights
   15. Weaving implements
   16. Grindstones
   17. Tweezers
   18. Keys
   19. Scissors
   20. Soapstone vessels
   21. Iron kettles
   22. Combs
   23. Fire steels
   24. Flint
   25. Sickles
   26. Whalebone vices
   27. Whetstone
   28. Chisels
   29. Blacksmith tools
   30. Jewellers tools
   31. Weights
   32. Coins
   33. Fish hooks
   34. Boat hooks
35. Fish weights
36. Beads
37. Bells
38. Belt buckles
39. Bracelets
40. Buttons
41. Chapes
42. Clothing
43. Coins in pendants
44. Rings
45. Oval brooches
46. Penannular brooch
47. Pendants
48. Ringed pins
49. Round brooches
50. Crosses
51. Thor's hammer
52. Tongue shaped brooches
53. Bridle bits
54. Bridle mountings
55. Horse shoes
56. Ice picks
57. Spurs
58. Ice spurs
59. Saddles (remains)
60. Stirrups
61. Straps with buckles
62. Nails
63. Rivets
64. Combination (specify)
65. Other (specify)
66. Unknown

27- Stray find.
1. Farm site
2. Church site
3. Public location (Thing)
4. Countryside
5. Other (specify)
6. Unknown

28- Number of surrounding buildings.
1. 1
2. 2
3. 3+
4. Not applicable
5. Unknown

29- Non-human faunal remains.
1. Horses
2. Dogs
3. Cows
4. Sheep
5. Pig
6. Fish
7. Fowl
8. Combination (specify)
9. Other (specify)
10. Unknown
30- Floral remains.
31- Number of artefacts on site.
   1. 0>5
   2. 5>10
   3. 10>20
   4. 20>30
   5. 30+
6. Unknown
32- Artefacts.
   1. Arrow heads
   2. Bow (remains)
   3. Swords
   4. Spears
   5. Knives
   6. Shield/shield boss
   7. Axe
   8. Sword chapes
   9. Gaming pieces
   10. Dice
   11. Figurines
   12. Spindle whorls
   13. Loom weights
   14. Weaving implements
   15. Grindstones
   16. Tweezers
   17. Keys
   18. Scissors
   19. Soapstone vessels
   20. Iron kettles
   21. Combs
   22. Fire steels
   23. Flint
   24. Sickles
   25. Whalebone vices
   26. Whetstone
   27. Chisels
   28. Blacksmith tools
   29. Jewellers tools
   30. Weights
   31. Coins
   32. Fish hooks
   33. Boat hooks
   34. Fish weights
   35. Beads
   36. Bell
   37. Belt buckles
   38. Bracelets
   39. Buttons
   40. Chapes
   41. Clothing
   42. Coins in pendants
   43. Rings
   44. Oval brooches
   45. Penannular brooch
   46. Pendants
   47. Ringed pins
48. Round brooches
49. Crosses
50. Thor's hammer
51. Tongue shaped brooches
52. Bridle bits
53. Bridle mountings
54. Horse shoes
55. Ice picks
56. Spurs
57. Ice spurs
58. Saddles (remains)
59. Stirrups
60. Straps with buckles
61. Nails
62. Rivets
63. Combination (specify)
64. Other (specify)
65. Unknown

Accompanying the descriptive and archaeological analysis form, the reader will note yet another form (see below) which served as the data collection implement (displayed below). I used this form at the museum while recording data. I did so numerically, and the chart contains numbers corresponding to each item on the research sheet. For example, 1 corresponds to the name of the object, and if it happens to be a ring, then 1/1 will be recorded on the chart. The reader will also notice that the number of items I intended to record does not correspond to the number of squares on the chart. I allowed for an additional four columns, as I thought at the time that I might encounter other elements worth recording.
Jewellery Analysis Form 1.
NATIONAL MUSEUM OF ICELAND.

<table>
<thead>
<tr>
<th>Museum Serial Number</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of item</td>
<td>Site</td>
</tr>
<tr>
<td>Date of Piece</td>
<td>Trench/section</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Level</td>
</tr>
</tbody>
</table>

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|
| 19| 20| 21| 22| 23| 24| 25| 26| 27| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |

1-26.  
4-13.  
6-13.  
6-14.  
7.  
19-5.  
20.  
23-8.  
23-9.  
26-63.  
26-64.  
27-5.  
29-8.  
29-9.  
32-63.  
32-64.  

Comments
The practical outcome of my recording system was adequate but much of what I had devised in my analysis sheets proved to be unnecessary. The archaeological context section of my analysis sheet turned out to be obsolete for reasons which will be explained below. I had thought at the time that a numerical recording system might be a useful attribute when working with a database. I was wrong, and the only advantage to this system was that it allowed for more efficient recording. Subsequently, when collecting data at the National Museum of Scotland, I redesigned my recording sheet, and produced something far more straightforward and less confusing.

National Museum of Iceland

Accessing the archaeological contexts and finds information from the museum's records proved to be difficult. The ledgers were for the most part hand written in Icelandic, and the handwriting difficult to decipher even for native Icelandic speakers. At the time, the museum was in the process of transferring this information to a database making it difficult to access. I solved my problem by using Kristján Eldjárn's catalogue Kuml og Haugfé (1956), which contained most of the relevant information regarding material form burials. I was able towards the end of my stay, thanks to Lilja Árnadóttir, to obtain printed sheets from the database for stray find items. I am greatly indebted to Mjöll Snæsdóttir, as well as Elin Hreiðarsdóttir for the time they spent translating sections of Kuml of Haugfé to me as well as the print outs from the museum's data base.

The archaeological information was supplemented in 1999 by the preliminary osteological report produced by Hildur Gestsdóttir (1998) from the Institute of Archaeology of Iceland entitled: Kyn-og lifaldursgreiningar á beinum úr islenskum kumlum. Hildur Gestsdóttir produced the first in-depth sexing and ageing of the skeletal material from Icelandic Viking burials since Jón Steffason's attempt in 1956.
Data Collection, National Museum of Copenhagen

In November 1999 I spent one week in Copenhagen at the National Museum of Denmark recording the remaining pieces of Icelandic jewellery to add to my corpus. I was assisted by Lars Jørgensen. Along side the Icelandic material, I took advantage of the trip to record any items they had from other areas of the Viking world such as: the Faroe Islands, Scotland, or Greenland. There proved to be no material from the Faroe Islands, one gold ring from Greenland and the second oval brooch from Castletown, Scotland. For the actual recording process I used the same analysis sheet used in Iceland. Lars Jørgensen kindly translated the contexts and archaeological information (in Danish) stored in the museum ledgers.

Data collection, the Royal Museum of Scotland

As part of my doctoral dissertation focuses on a comparative analysis of the Icelandic material with material from the rest of the North Atlantic, it was necessary to visit the collections at the National Museum of Scotland. This enabled me to record Scottish Viking material as well as familiarise myself with the Viking period archaeological situation in this part of the world.

As mentioned above, by the time I arrived in Edinburgh I had become sufficiently familiar with recording artefacts that I dispensed of the analysis sheets I used in Iceland and Denmark and utilised something more straightforward.

I wish to point out that throughout the data collection process, I illustrated most of the jewellery, and when permitted photographed it. In Iceland, as I was hired as an illustrator for the re-publication of *Kuml og Haugfé* (2000), I have incorporated these illustrations into the body of the thesis.
Part 2. Data base design

For the analysis of the data, I used a relational database: Microsoft Access 97 for PCs. The database design is as follows:

The tables

The first step in the data base design consisted in mapping out, by hand, the overall appearance of the database, the required tables, fields and their respective relationships. Several attempts were made until an adequate model was devised. What resulted was the creation of seven tables: Iceland, Greenland/Faroe Islands/Newfoundland, Scotland, graves, grave goods, stray finds, and jewellery. The database lay-out and relationships were established as follows:

Iceland

⇒ Graves ⇒ Grave goods

Greenland/Faroe Islands/
Newfoundland

⇒ Jewellery

Scotland

⇒ Stray Finds

Table 2: Diagram summarising database lay-out.

Each title in this diagram represents one heading from the database's tables, and each table contains a list of fields. The data (jewellery), if from Iceland, is entered in the Iceland table, and depending on its archaeological context will be entered as either grave or stray find. If the jewellery is from a grave context, the grave goods table will become available for supplementary
information on non-jewellery grave goods. The final relationship links either a grave or stray find with the jewellery itself.

While entering data, I began with the burial material and only addressed the stray find material once the jewellery from graves was complete. However, my lay-out and the relationships I had created, rapidly proved to be non-functional. I therefore, decided abolish the "stray finds" table and alter the database design. The "graves" table became a "graves/stray find" table and I added supplementary fields to account for the possibility of either context. This greatly simplified the lay-out and transformed it to a more functional database.

\[
\text{Iceland} \Rightarrow \text{Graves/stray find} \Rightarrow \text{Jewellery} \Rightarrow (\text{Graves goods})
\]

Table 3: Final lay-out of database design.

Fields

Fields for "Iceland" are: Access primary key, site name, Hreppur (parish division), and Sýsla (regional divisions). I decided to maintain the Hreppur and Sýsla terminology as they are used consistently in Icelandic archaeology to locate sites. For the remaining regions of the North Atlantic, Greenland, Faroe Islands, Scotland and Newfoundland, I used the same fields: access primary key, site name, parish, and region. However, the more I used the database the more I realised that these additional Greenland/Faroe Islands/Newfoundland and Scotland tables were unnecessary. I found that during the analysis it was simpler to refer to this material progressively by consulting my museum notes rather than entering them into the database.

\footnote{In the following section, when referring to "table" I am referring to Access terminology and tables signify elements in the database design.}
For the Icelandic data, I added an additional field "Assigned grave number" which is the numbering system used by the Institute of Archaeology of Iceland. In most instances it refers to particular skeletal remains, but very often it is difficult to associate these assigned numbers (skeletons) with particular graves and grave goods, due to incomplete excavation records. To avoid any confusion, and when uncertain, question marks have been placed next to these numbers.

**Graves/stray find table**

The graves/stray find table contains the following fields:
- Access primary key
- Iceland
- Greenland/Faroe Islands/Newfoundland
- Scotland
- Type of site (grave or stray find)
- Type of inhumation (Physical and material construction of the grave: presence or absence of coffins, wrappings of various sorts, etc)
- Character of the grave (single, multiple)
- Location (isolated or grave field)
- Age
- Sex
- Orientation
- Length
- Width
- Depth
- Position of body (cardinal points)
- Animals (horses, dogs, or both)
- Comments
The first sets of fields: Greenland/Faroe Islands/Newfoundland, Scotland were not used. Fields such as "Type of inhumation", "Character of grave", "Location of grave", "Age" "Sex", "Position of body", "Animals" all have look up tables and offer choice of options from which to choose. This is a suitable mechanism to prevent errors in spelling and data entry.

The reader will note the field "Type of site" this was a later addition to the table and was included to account for stray find contexts. When entering a stray find, the remaining fields sex, age etc became obsolete and were left with no entries of data. This gives a somewhat messy appearance, but did not affect the overall functioning of the database.

I wish to point out certain particularities of this database design. It was created primarily with the Icelandic context in mind. In Iceland there are no known cremation burials, of the 316 known Viking period burials all are inhumations (Einarsson, 1995:46). Furthermore, as there is a significant degree of erosion in the Icelandic landscape, most burial mounds will not be apparent today. Elements pertaining to the physical manifestations of burials such as the actual enveloping of the body and the use of coffins was included under the category of "Type of inhumation". In Gräslund's analysis of the burials from Birka, a number of different inhumation methods were recorded: those with coffins, those without coffins and chamber graves (Gräslund, 1980:7). Fortunately, at Birka the preservation was far better than in Iceland and therefore, more could be said of the treatment of the body. At Birka, graves with nails, or wooden debris were included under the category of graves with coffins. When there was an absence these elements they were labelled graves without coffins (Gräslund, 1980:12). Gräslund argued that in coffinless burials the dead were wrapped in a shroud of some sort before being placed directly in the grave pit (ibid.). To a certain extent these observations could be applied to the Icelandic context, though the presence of nails could also signify the presence of a boat burial.
Furthermore, in many instances the burials were discovered over 100 years ago and the excavation techniques left much to be desired. Such early excavations rarely bothered to record the physical aspects of the burial, such as the treatment of the body, dimensions of the grave, as well as the presence or absence of wood debris.

"Character of grave" field was incorporated into the design to make allowances for graves containing two or more individuals, and I allowed for single or multiple burials when more than one person was buried in one grave. By the same token, "Location of grave" field, was included to make a distinction between isolated graves and grave fields, or cemeteries. I have chosen the term "grave field" over "cemetry" and consider a grave field any area with two graves or more.

"Orientation of the grave" was to distinguish between possible Christian and Pre-Christian graves. It is generally thought that in the old Norse religion, it was preferred to bury the dead North-South, consequently a North-South orientation is taken to signify a pagan burial (Gräslund, 1980: 26). Christians on the other hand, buried their dead East-West, so that the dead face the east when Christ will come on the day of judgement (ibid.).

For the "Age" field rather than follow Hildur Gestsdóttir's system of using actual age categories, I chose a more broad classification. I have used the following categories: "infant", "juvenile","sub-adult","adult", "elderly", "unknown". The confusion with this system arises when faced with limited life expectancy, as was the case in the Viking age. Gräslund noted an average life expectancy of 30-40 years of age in Northern Europe (Gräslund, 1980: 82), therefore does this entail that 40 years of age equate "elderly" in a data entry context? I have decided, for the sake of consistency with what has been done on Icelandic burials, to apply the following categories with the following age groups:
<table>
<thead>
<tr>
<th>Hildur Gestsdóttir</th>
<th>Jewellery database</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>Infant</td>
</tr>
<tr>
<td>3-6</td>
<td>Juvenile</td>
</tr>
<tr>
<td>7-12</td>
<td>Juvenile</td>
</tr>
<tr>
<td>13-17</td>
<td>Sub-adult</td>
</tr>
<tr>
<td>18-25</td>
<td>Adult</td>
</tr>
<tr>
<td>26-35</td>
<td>Adult</td>
</tr>
<tr>
<td>36-45</td>
<td>Adult</td>
</tr>
<tr>
<td>46+</td>
<td>Elderly</td>
</tr>
</tbody>
</table>

Table 4: Age groups as stipulated by Gestsdóttir and corresponding categories utilised in the database.

Last but not least, the "animals" field was added to the list to account for graves with animals (notably horses and dogs) which were frequently placed in graves to accompany the dead on their journey. Icelandic burials are notorious for their large numbers of horses in burials, far more widespread than other regions of the Viking world (Müller-Wille, 1971: 120-121 in Ringstedt, 1997:70)

Grave goods table

The grave goods table was intended for all non-jewellery artefacts incorporated into the grave. I chose not to establish a long list of fields for this table, but tailored the fields to my needs, and the information I needed for my analysis; bearing in mind that the main focus of my analysis was jewellery and its social significance. The fields for the grave goods table are listed here:

Access primary key
The "grave number" field in this table is what figures in the "graves/stray" find table and is generated directly by Access. The "artefact number" field refers to the artefact's actual registration number, and when not available I assigned numbers 1, 2, 3 and so on. "Type" field refers to the type of non-jewellery artefact in the grave, i.e. spearhead, axe, spindle whorl etc; and quantity to their numbers in the grave. When dealing with unnumbered fragments of iron or fragments of other materials I left the "quantity" field at zero.

**Jewellery table**

The jewellery table is the most important table in the database. The information I recorded at the National Museum of Iceland would appear as fields in the database. These are the following fields of the jewellery table:

- Access primary key
- Museum registration number
- a/b (for jewellery worn in pairs)
- Name of item
- Iceland
- Greenland/Faroe Islands/Newfoundland
- Scotland
- Length
- Width
- Height
Thickness
Estimated date of piece
Position in grave
Location of stray find
Grave/stray find number
Quality of workmanship (fine, average, coarse)
Materials
Techniques
Designs (Artistic styles)
Typology (Jan Petersen's classification)
Country of fabrication
Date of discovery
Image (yes/no)
Comments

Some of these fields are self explanatory, and coincide with what was described in Part 1 of this chapter (see the museum recording sheet). The "Museum number" field refers to the numbers used in various museum to record artefacts. However, at the National Museum of Iceland, before artefacts are assigned proper registered numbers, they may be identified in the following fashion: 3.9.88. This system uses the date of discovery of the piece, so in this particular instance, the 3rd day of the 9th month 1988. This system is common with recent finds or finds which were not yet properly registered during the publication of Kuml og Haugfé. The 1956 finds have by now, hopefully, acquired registration numbers, though this is not always the case. Certain Icelandic burials such as Daðastaðir bear the number 15691, and artefacts from this burial are listed as 15691-1, 15691-2 and so on. This numbering system is incompatible with the database design and for the sake of efficiency, I simplified these numbers: 156911, 156912 etc. during data entry.
Pairs of oval brooches at the National Museum of Iceland are numbered as a-b, such as 5030a and 5030b, this too is incompatible with the numbering settings in Access. I therefore, created an additional field, and the reader will notice "a/b" field below the museum number for jewellery worn in pairs.

Regarding the measurement fields. I have allowed for four type of measurements: length, width, height (when applicable) and thickness. As a rule I have tended to opt for the larger measurement. Therefore, when measuring a ringed pin, one can measure the ring and pin separately or the two combined which offers a larger measurement. I have opted for the latter. Bead necklaces are another example, when measuring the pendant as an ensemble, I have chosen the largest bead for the width, as it is the maximum width I am interested in.

The "Estimated date of the piece" field was added to allow for certain items of jewellery with more or less known dates. For example, certain Hiberno-Norse bells from Iceland and the British Isles have been dated to the 10th century (Batey, 1988: 215). This field allows for the possible date of the piece of jewellery and not the date of its archaeological context. Oval brooch dating is slightly more confusing. Jan Petersen in his classification of Viking period oval brooches, assigned all P51 brooches to the 10th century (Petersen, 1928:60). Ingmar Jansson slightly altered this chronology in his own analysis of oval brooches from Birka and found that P51a brooches were earlier than other models. He dated P51a brooches to the late 9th century, and P51b,c,d,e,f,g,h as later models which appeared in the 10th century (Jansson, 1985:228). However, in an earlier article, Jansson argued that despite the earlier date of P 51a brooches they could have been made at the same time as the later variants of the same family (Jansson, 1981:4). By the end of the10th century and early 11th centuries oval brooches went out of use (Jansson, 1985:228). For ringed pins, the chronological sequence
offered in Fanning's analysis carried on the Dublin material was utilised in this section.

The "Quality of workmanship" field might be considered by some as a subjective field. On what basis can one make assumptions on the quality of workmanship of jewellery? This section was based on my own practical experience in silversmithing. For example, the oval brooch number 10912, a stray find without provenance, is a P55 variant and probably one of the most crudely fabricated oval brooches from Iceland. The decorative elements are chased on in a rough geometric fashion without paying attention to detail and design. Other aspects, which might affect the quality of workmanship, are integrated pre-casting scratches on the pieces. The presence of these scratches indicate that the craftsman failed to "clean-up" his preliminary model before casting, be that of wax or another substance. The polishing of a wax model before casting (called "flambée"), is recommended and is easily achieved with the flame of a candle. The advantage of this technique is that it produces a more "clean" cast and reduces the post-casting polishing time and effort. For more information on the quality of workmanship with reference to oval brooches I refer the reader to Chapter 7, of this thesis.

For the "materials" field I made allowance for the various materials mentioned in Part 1 of this chapter. The same is true for the "techniques" field, taken from various manuals of silver smithing such as Oppi Untrachts, *Jewellery, Concepts and Techniques*.

The "Design" field makes reference to the Viking art styles also described above, and the "typology" field was added in order to encompass, when applicable, the classification system for Viking jewellery devised by Jan Petersen in 1928 in *Vikingatidens smykker* and others.
The "Country of fabrication" field was incorporated in order to offer information pertaining to the possible geographic and cultural provenance of each piece. Certain items of jewellery are most definitely from the British Isles, others from Continental Europe, the Baltic and Eastern Europe while others are typically Scandinavian.

For all items of jewellery which have wrong numbers, no numbers, or uncertain numbers, I was obliged to assign an arbitrary numbering system for this category of artefacts in order to include them in the analysis. Large numbers starting with 9999999 appear occasionally in the database. I chose such large numbers in order to avoid potential confusion with equally large numbers used in the museums. Therefore, an artefact bearing 99999991 is the first item entered in the database that did not have an assigned small finds number in its museum of origin.

Forms in Access

Once the database design was completed and the tables created with their various relationships and fields established, I then proceeded to the creation of forms and subforms. Forms and subforms allow the researcher to enter data into all the necessary fields at once, and display, on screen the relationships built into the database. Data can also be entered into the "tables" directly which offers a spreadsheet view but limits the entry to one table at a time.

Queries

When the data entry is complete the following task is to make the database function and perform the required analysis. To arrived at this desired outcome, one must create "queries" relevant to the types of question
enumerate at the beginning of this chapter. In a query the researcher can combine one or two tables and extract only the fields, which pertain to his/her specific interrogation. For example, if one were to question the number of Insular items in the Icelandic corpus with their respective archaeological contexts, then both tables would be called up and the desired field chosen.

Problems with the data and supplementary data

As mentioned several times, when Eldjárn compiled his catalogue of Viking burials in Kuml of Haugfé for his doctoral dissertation, much of the archaeological investigations were until then inadequate with excavation records incomplete, scanty, and little to no attention paid to context of discovery. In the case of burial archaeology, measurements were not taken, the position, and treatment of the body were not recorded, nor were the locations of grave goods identified. Iceland is not unique in the North Atlantic to have suffered this fate, Scotland shares a similar past. For those of us today who wish to make sense of this material the task can be at times difficult and frustrating.

Kristjárn Eldjárn was the first to attempt to put some order into the burial data of Iceland, and was unique in that he intentionally avoided making reference to the saga literature and tradition (Friðriksson, 1994: 88). Prior to Kuml og Haugfé, and as discussed in the historical overview of Chapter 1., most archaeological research had revolved around the sagas in some way or another, either to prove or disprove the evidence in these written documents (Vilhjálmsson, 1990:43). Burials discovered by Eldjárn himself were excavated more in keeping with modern approaches, and therefore, offer more in terms of information, though compared to today's standards, are also lacking. Dating of the skeletal material, for example, was never carried out during Eldjarn's research, and dating of the graves was achieved through the analysis of grave goods and on the grounds of typology (see Chapter 5)
This is a less than adequate method when addressing a situation of colonisation, where isolation is a factor, and where people may hang on to material culture for some time before placing it in the ground with their deceased kin. Fortunately, this situation is currently being remedied to by Dr. Jette Arneborg, from the National Museum of Denmark, who has begun a dating project of Icelandic Viking burials as part of a larger North Atlantic survey entitled Greenland Isotope Project. Sixty-eight samples have been taken from the skeletal remains from Icelandic graves, with the intention to submit them to AMS dating in the upcoming year (J. Arneborg, personal communication, 2000).

Sexing for Kuml og Haugfé was done by Jón Stefenssen, as described above, and was more recently reviewed by Hildur Gestsdóttir in a preliminary report presented by Fornleifastofnun Íslands (1998). Gestsdóttir has found errors and adjustments needed in some of Stefansson’s sexing and was able to provide more in depth paleopathological insights into certain skeletal remains, such as the grave from Öndverðarnesi (see Chapter 6).

With poor excavation techniques, Iceland is also notorious for its severe erosion problem. This too has affected the quality of data retrieved from archaeological sites. Almost half of the 316 Icelandic burials were discovered accidentally by erosion, others due to construction work and road building. There are regions displaying concentrations of burials such as, the south west (Rangárvallasýsla, Arnesýsla), the north, (Eyjafjarðarsýsla) and the north-east (Norður Mulasýsla, and Suður-Mulasýsla) (Friðriksson, 1994: 91; Einarsson, 1995: 46). As reviewed in Chapter 5, it has been suggested that this pattern is not representative, and that the grave distribution should be more uniform throughout the country (Einarsson, 1995: 48).
Potential of the data

With these concerns at hand I attempted in my own data collection to extract what I could from the sources and site records at the National Museum of Iceland. However at the time I was there, general research was being conducted on the graves of Iceland, by the Institute of Archaeology of Iceland for the revised version of Kuml og Haugfé. The intend of this revised edition of the grave catalogue was to shed light on some of these problematic areas as well as update Eldján’s catalogue. I was given access to some areas of the Institute’s research, though much of it was in progress and under evaluation and could not be distributed prior to publication.

Despite these issues, I believe a social analysis to be possible, as not all the data is deficient. Scholars have often argued that Icelandic burials are notoriously poor and ill furnished in comparison with their Scandinavian counterparts, and the rich burials depicting high social status are absent from the Icelandic archaeological record (Einarsson, 1995). While this observation is correct it removes nothing from the research potential of Icelandic graves or their social understanding. One might argue that this "seeming" poverty is much in keeping with the political and social reality of early Iceland. Without lavish funerary display, it may be possible to arrive at some insights into the lives of ordinary people involved in the settlement of the North Atlantic. Furthermore, through the analysis of the body through burial, and by using adornment and dress as symbols reflecting deeper social concerns and control, it may be possible to identify in the jewellery elements which reveal behaviours expressing status, either by the presence of certain types of jewellery, or assemblages of artefacts of which jewellery forms a part. To quote Aubrey Cannon (1989), elaboration of funeral display need not always equate high social status but the contrary: "Although competitive display is a major factor in the elaboration of mortuary behaviour, it can also lead to an eventual reduction in its intensity...as
elaboration becomes increasingly associated with lower status categories (Cannon, 1989: 437)."

Jewellery, dress and adornment as an expression of society's values and ideology may reveal something of gender, gender roles, as well as the role of men and women in Norse society. By the same token, religious and magical function in Icelandic society may become apparent through jewellery, not only in the form Thor's hammer and crosses, but also in other aspects. Information may emerge about the use of amulets indicating the degree of superstition and possibly the nature of these superstitions. Jewellery may offer information as to the social occupation of its owner in the burial setting. It may be possible (though not certain) to identify professional affiliation or group affiliation in the burial display through the types of jewellery found.

Jewellery typology and fabrication may offer some insights into other social realms. They may reveal local fabrication or importation. Is there a correlation between imported goods and their presence in graves? Does one see more foreign goods in graves of wealthier individuals? Furthermore, by identifying the place of origin of the jewellery, this might settle the question of whether jewellery was ever made locally in Iceland. It is incorrect to assume that all Viking Age jewellery was moulded, and an absence of moulds and workshop debris in the archaeological record would indicate that no fine metals were worked in Iceland. Much jewellery can be fabricated without the use of moulds at all. For example stamping, a technique used extensively in Viking Age jewellery is done with sheet metal and a stamping implement. Forging, a technique used in making twisted silver torques, is also done without the use of moulds. No definite traces would necessarily remain of such processes.

Fine workmanship may also be an indicator of social attitudes. Well made jewellery in graves versus more coarsely made jewellery may suggest higher
social status. By the same token, poorly made jewellery in higher status burials may also indicate attitudes about the jewellery itself rather than its rendering.

The Saga sources, and their ethnographic content

The social analysis of jewellery of early Iceland would greatly benefit from the help of ethnographic sources used as comparative data. The sagas offer this opportunity. Scholars in the past have often viewed the sagas as concrete fact and evidence about the early settlement of Iceland. Archaeology became a means by which scholars could prove the contents of these documents. Today, this approach has been contested, and the focus is now on the archaeological record to obtain more reliable sources of historical accounts. However, based on Miller's (1990) observations, while the historical facts may be faulty, the overall structure and attitudes of society are prevalent in the sagas and can be used alongside the archaeology, thus enhancing the quality of research. Despite the fact that they were written after the end of the Viking era they are still closer to the Viking Age with regards to social attitudes than are any other sources.

In this thesis I have used them in this manner when at all possible. The family sagas, in particular may display information, attitudes and cultural reactions to certain areas of society such as jewellery, adornment, death, and attitudes towards the body in general. Certain information pertaining to the materials jewellery was be made of (ex. amber) might also be available. Certain family sagas were useful in the analysis such as: Laxdæla Saga, and The Vinland Sagas. I have used information from both the Older Edda as well as Snorri's Edda. In the interpretation chapters of this dissertation these historical and literary sources have been incorporated in the main text so that they are compared against the archaeological data being discussed.
Technical jewellery making, and social analysis

As part of the study of jewellery from Iceland and the North Atlantic, a portion of the research focused on the practical dimensions of Viking period jewellery making. My main area of interest has been the production of oval brooches.

The making of oval brooch is not an original topic of research, and has been investigated by Scandinavian researchers for over 100 years. According to Eniosova, from the department of Archaeology of Moscow State University, in an unpublished and undated paper on oval brooch production from the site of Gnezdovo, the following researchers have tackled this topic: Hildebrand (1892); Oldeberg (1942-43/1966); Jankuhn (1956); Zachrisson (1960), Brinch Madsen (1976/82); Jansson (1981/85); Fugelsang (1987); Hedegaard (1992); Lønborg (1992); Malmius (1996) (C. Paterson, personal communication, 2000).

Researchers, including myself have been intrigued by three significant stages in oval brooch casting: What was used in the preliminary stage of oval brooch production? A pattern made of hard material such as a pre-existing brooch, a lead die, or a softer substance such as wax? What was the purpose of the fabric used in the making of oval brooches, and at what moment does it figure in the process? And finally what is the purpose of using two part moulds when a one part mould combined with the lost wax process is equally as effective, particularly when in both instances the moulds are destroyed after casting?

These questions are readdressed in Appendix A of this thesis and incorporated along with the results from the technological trials. The technological studies have contributed to the discussion of local jewellery production in Iceland in Chapter 7, and have helped in the analysis of the
Icelandic material as well as acquiring a more thorough understanding of jewellery from Viking world at large.
CHAPTER 5

The Icelandic corpus and its archaeological characteristics

In the previous chapter I explained how the Icelandic corpus of Viking jewellery was collected, recorded and organised with the help of a relational database. In this chapter I will look at the results from this database in order to establish some basic premises of the data: where was the jewellery found within Iceland? What is the relationship between jewellery and burial and jewellery and settlement? What time period did the jewellery come from? And where did it come from? Was it all imported, and if so from what regions of the Viking world?

Geographic provenance of Viking jewellery within Iceland, and its relationship to settlement and burial sites

![Graph showing distribution of jewellery found in different contexts.]

Table 5: Distribution of jewellery found in different archaeological contexts.

In the context of this doctoral research, 253 items of jewellery were recorded based on the broad definition of jewellery described in Chapter 4. From the database, 120 different sites in Iceland could claim one or several items of jewellery. From these sites, 14 of these were graves, while another 50 were farm sites and 2 sites of unknown provenance. Therefore, possible to say that a large portion of the jewellery came from a burial context making a social analysis more feasible.
In the context of this doctoral research 253 items of jewellery were recorded based on the broad definition of jewellery described in Chapter 4. From the database 139 different sites were identified which could claim one or several items of jewellery. From 139 sites, 74 of these were graves, while another 59 were stray finds. To be added to these numbers are 4 farm sites and 2 sites of unknown provenance in Iceland. It is therefore, possible to say that a large portion of the jewellery came from a burial context making a social analysis more feasible.

The results from this research indicate that jewellery from the Viking period was discovered throughout Iceland though certain regions display concentrations of jewellery. Not surprisingly, these regions coincide with areas of denser archaeological activity such as the south-west and the north-east and are in keeping with results obtained from other archaeological sources like burial and settlement. The maps below offer an overview of the burial distribution on one hand, and of the provenance of the jewellery by Sýsla (districts of Iceland) on the other.

Figure 3: Grave distribution for Iceland (Einarsson, 1995:47)
Figure 4: Distribution of sites with jewellery per sýsla.
<table>
<thead>
<tr>
<th>Sýsla</th>
<th>Number of sites (including grave sites, farm sites, and stray finds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arnesýsla</td>
<td>16</td>
</tr>
<tr>
<td>Gullbringu-Kjósarsýs.</td>
<td>6</td>
</tr>
<tr>
<td>Borgarfjarðarsýsla</td>
<td>4</td>
</tr>
<tr>
<td>Mýrasýsla</td>
<td>2</td>
</tr>
<tr>
<td>Snaefells-Hnappadass.</td>
<td>2</td>
</tr>
<tr>
<td>Dalasýsla</td>
<td>4</td>
</tr>
<tr>
<td>Barðastrandarsýsla</td>
<td>2</td>
</tr>
<tr>
<td>Isafjarðarsýsla</td>
<td>1</td>
</tr>
<tr>
<td>Strandasýsla</td>
<td>0</td>
</tr>
<tr>
<td>Vestur-Hunavatnssýsla</td>
<td>2</td>
</tr>
<tr>
<td>Austur-Hunavatnssýsla</td>
<td>7</td>
</tr>
<tr>
<td>Skagafjarðarsýsla</td>
<td>7</td>
</tr>
<tr>
<td>Eyjafjarðarsýsla</td>
<td>15</td>
</tr>
<tr>
<td>Suður-Píngeyjarsýsla</td>
<td>10</td>
</tr>
<tr>
<td>Norður-Píngeyjarsýsla</td>
<td>1</td>
</tr>
<tr>
<td>Norður-Múlasýsla</td>
<td>11</td>
</tr>
<tr>
<td>Suður-Múlasýsla</td>
<td>6</td>
</tr>
<tr>
<td>Austur-Skaftafellssýsla</td>
<td>4</td>
</tr>
<tr>
<td>Vestur-Skaftafellssýsla</td>
<td>4</td>
</tr>
<tr>
<td>Rangárvallasýsla</td>
<td>16</td>
</tr>
<tr>
<td>Vestmanaeyjar</td>
<td>3</td>
</tr>
<tr>
<td>Uncertain</td>
<td>16</td>
</tr>
</tbody>
</table>

Table 6: Number of sites per Sýsla where jewellery was found.

Concentrations of jewellery are found in Arnesýsla and Rangárvallasýsla, Eyjafjarðarsýsla, and Norður-Múlasýsla, and Suður-Píngeyjarsýsla corresponding to concentrations of burials as displayed above (Friðriksson, 1994: 91; Einarsson, 1995: 46).
Regarding burial, Eldjárur and Friðriksson (2000) argued that this uneven pattern could be interpreted as diverse beliefs distributed throughout the country. Therefore, the scarcity of pagan burials in the west could be interpreted as the result of Christian populations from the British Isles settling in that region (Eldjárur, Friðriksson, 2000: 591). However, Eldjárur in 1956 also demonstrated that this unevenness in the distribution could be the result of soil erosion and road construction that was most active in these parts of the country (Friðriksson, 1994: 91).

**Time frame of Viking jewellery from Iceland**

This doctoral thesis has for aim the analysis of jewellery from the early settlement of Iceland. As was discussed in Chapter 1, this time frame is labelled the *landnám* period⁷. The analysis in this thesis ends with the introduction of Christianity into Iceland. The generally accepted and established end of Norse paganism is dated at 1000AD⁸.

The Icelandic jewellery in this corpus comes from the 9th, 10th and 11th centuries with a predominance of material from the 10th century. Most of the objects discussed here were dated on the basis of typology and by Eldjárur himself, for the most part in his doctoral thesis in 1956. Eldjárur dated artefacts using the well-known typological studies of Petersen, Rygh and Montelius as well as comparative data from the rest of the Viking world. Some dating of oval brooches I did myself with the use of Jansson’s chronological sequence for oval brooches from Birka discussed in chapter 4.⁹

---

⁷ The *landnám* period is thought to have commenced in 874 AD according to the *Landnámabók* (Boyer, 1973:7)

⁸ See chapter 1 on *landnám, commonwealth*, p. 31.

⁹ See chapter 4 p. 129. It must be said that there is frequently a discrepancy in the dating of art styles and the actual fabrication date of the object. With oval brooches earlier models in the P51 series could have been produced later or at the same time as later motifs (Jansson, 1981:4)
Ringed pins were dated using Fanning’s (1994) analysis on the ringed pins from Dublin.

Therefore, most of the dating of jewellery from burials was done on the basis of typology and art styles, rather than using scientific dating methods to date the burials and the archaeological context in which the jewellery was found. This is in part due to little to no scientific dating carried out on Icelandic burials, and the dates presented here are to be considered as approximate dates as there is frequently a discrepancy between the actual age of artefacts and the dates of sites. The only certainty regarding the dating, comes from the fact that Icelandic Viking period burials display evidence of grave goods, a behaviour generally associated with Norse paganism indicating that this jewellery would have been in circulation prior to 1000AD.

There is also a degree of overlap in periods. For example, it is difficult to draw a clear line at the end of the Viking period in Iceland. It is more than likely that a degree of overlap took place with the material culture and certain items of jewellery may have continued to be in use for some time after the end of the Viking period. By the same token, can the introduction of Christianity be dated precisely at 1000AD? And how many people may have continued to practise pagan burial rites after that date? Taking these considerations into account, I have included into the corpus items such as Urnes style brooches that are dated to the 11th century as the cut off date is difficult to assess.

In this corpus four items could be dated to the 9th century, 105 from the 10th, and an additional 8 from the 11th. From the 9th century are four oval brooches, two of which are P24 types the only ones recorded for Iceland, and are discussed in Chapter 6\textsuperscript{10}. The other pair, P51a type brooches

\textsuperscript{10} Chapter 6, p.275

144
thought to be earlier in the P51 sequence according to Jansson (Jansson, 1981:4).

From the 10th century a large number of items were recorded ranging from belt buckles, oval brooches, ringed pins, round brooches, sword chapes, sword hilts, trefoil brooches and so on. This material constitutes for the most part, the typical grave goods found in Scandinavian and North Atlantic burials such as the trefoil brooch from Stora Núpi (no.9332)(Fig 5) or the sword chape from Vestfirðir (no.3048) (Fig 6) decorated in the Jelling style. While addressing questions of dating, it is worth pointing out that two artistic styles prevailed in Iceland during this period: the Borre style, and the Jelling style. By the same token much of the Scandinavian material of this period is highly standardised and not unlike oval brooches, the same models reoccur throughout the Viking world.

Figure 5: Trefoil brooch from Stóra Núpi (no.9332) (5.3cmx 6.8cm) (Illustration: M. Hayeur Smith).
Material from the 11th century was more problematic to determine. It included two Urnes style brooches, one from Trollaskogi (no. 6524) (Fig. 7) made of silver and another made of copper alloy from Skáney í Reykholtssdal (no. 1593) (Fig. 8). Four ringed pins were recorded from this later period and will be discussed below regarding the jewellery’s provenance in the Viking world.
**Figure 7**: Urnes style brooch from Trollaskogi (no. 6524) (3.9 cm x 3.6 cm) (Illustration: M. Hayeur Smith).

**Figure 8**: Urnes style brooch from Skáney í Reykholtsdal (no. 1593) (4 cm x 3.8 cm) (Illustration: M. Hayeur Smith).
Icelandic Viking Jewellery, its provenance in the Viking world

Icelandic jewellery comes from different regions of the Viking world. The largest category of jewellery comes from Scandinavia though there is material from the British Isles (including, Scotland, the Northern and Western Isles, and Ireland), the Baltic area (Eastern Europe), Continental Europe, "Oriental" material stemming from the middle East and the Eastern Viking world, and possible locally made Icelandic jewellery.

Having said this, I must point out that while some of the identification presented here is accurate locating the provenance of jewellery and artefacts on the basis of style and design from any collection is problematic at best. Items which may have been labelled as "Frankish", "Oriental" etc need not necessarily have come from these regions of the globe, but the designs themselves may have travelled to be incorporated into a repertoire of designs utilised by Norse craftsmen and resulting in hybrid styles. For this reason some of the classification offered here might not be accurate. Skibsted Klæsøe (1997) regarding plant ornament jewellery from Scandinavia and its Frankish connection, noted this phenomenon:

" It is considered that Nordic ornaments are inspired by artistic traditions resulting from the contacts between itinerant missionaries from the monasteries of Central Europe and Scandinavian craft workers." (Skibsted Klæsøe, 1997:81)

When people are engaged in the type of expansion characteristic of the Viking period, artistic styles as well as metal-working techniques travelled with the people along with a multitude of other elements of culture. This is the nature of human interaction. When colonisation occurs people exchange artistic styles, ideology, technologies etc. Therefore, one might ask oneself what exactly is being said when an item is Frankish? Insular? Or Scandinavian? In past scholarship does this refer to the "origin" -as in the geographic provenance of the jewellery and where it was made? Or does it
refer to an artistic style that may have been integrated into Norse jewellery by Norse of foreign craftsmen? Is it the jewellery itself that travels? Or are the styles travelling giving the researcher an altered vision of provenance?

In Viking studies and traditional approaches to archaeology frequently these issues are not questioned; origins and styles are assumed. According to Wobst (1977) such stylistic analysis rests on shaky foundations (Wobst, 1977: 317). Wobst argued that these traditional approaches to stylistic analysis are "self-fulfilling and circular" (Wobst, 1977: 318). He attributed this approach to an assumption scholars have that styles are acquired before being utilised on the artefact and before they are integrated into other cultural processes (ibid.). From this perspective he argued that traditional archaeology has neglected the dynamics of stylistic behaviour and treated it as an element without function (ibid.). However, as I have argued throughout this thesis, jewellery is material culture and material culture is something dynamic, changing, loaded with symbolic meaning. It will be altered when groups come together it will be adapted to particular cultural environments ans is the case with certain hyberno-Norse items from the British Isles. Furthermore, the identification of artistic styles and origins as an end to itself is somewhat futile in this cultural setting.

Having expressed the reservations and limitations of this approach, the information provided here is based on such stylistic analysis. I have taken most of the information from this section from Eldjarn's PhD dissertation from 1956 and it is in agreement with other such studies from this same period. I have decided to remain with this system of identification to comply with other research on this topic. However, when applicable I may offer my own insights into the provenance of certain pieces, such as some Insular objects, as well as local Icelandic ones. The chart below offers the distribution of jewellery according to "assumed" provenance.
Table 7: Distribution of jewellery based on assumed provenance.

Jewellery of Scandinavian origin

From the database it was possible to identify 127 items of jewellery that have been identified as Scandinavian style and origin based on Eldjárns's research and supplementing with the research of Petersen (1928) and other similar studies. This is the largest category of items and is likely to suggest that the settlers were predominantly from Scandinavia. Certain of these items could be attributed to specific areas of Scandinavia, either Denmark, Sweden or Norway, though for the sake of this analysis, I have labelled all of this material as “Scandinavian” as such fine distinctions are not the scope of this study.
<table>
<thead>
<tr>
<th>Type of jewellery</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beads</td>
<td>42⁷¹</td>
</tr>
<tr>
<td>Belt buckles</td>
<td>4</td>
</tr>
<tr>
<td>Bracelets</td>
<td>1</td>
</tr>
<tr>
<td>Pendants</td>
<td>6</td>
</tr>
<tr>
<td>Oval brooches</td>
<td>44</td>
</tr>
<tr>
<td>Ringed pins</td>
<td>3</td>
</tr>
<tr>
<td>Sword chape</td>
<td>4</td>
</tr>
<tr>
<td>Sword hilt</td>
<td>2</td>
</tr>
<tr>
<td>Tongue shaped brooches</td>
<td>2</td>
</tr>
<tr>
<td>Trefoil brooches</td>
<td>8</td>
</tr>
<tr>
<td>Penannular brooch</td>
<td>2</td>
</tr>
<tr>
<td>Round brooch</td>
<td>6</td>
</tr>
<tr>
<td>Strap end</td>
<td>1</td>
</tr>
<tr>
<td>Urnes style brooches</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 8: Types of Scandinavian jewellery in the corpus and numbers.

**Trefoil brooches**

Of Scandinavian type are trefoil brooches such as the one found at Daðastaðir (Fig. 9) (no. 15691F) said to be a P97 type trefoil brooch as identified by Petersen. This trefoil brooch was found in association with other

⁷¹ Note that the beads are only those that were recorded in this corpus. This number does not refer to all the beads discovered in Iceland. Furthermore, their provenance here is assumed to be Scandinavian based on the materials used, rock crystal, amber, carnelian for example are not native to Iceland.
items of jewellery, such as a pair of P51b oval brooches, a bracelet, a bead necklace, and a belt clasp (Eldján, 1956: 136-138). Similarly standardised Scandinavian-type trefoil brooches were found at Snaehvammur (no.3930). (Fig. 10), and Stóra-Núpi (no.9332) and from the Miklaholt burial (no. 6462) now kept at the National Museum of Copenhagen.

Figure 9: Trefoil brooch from Daðastaðir (15691f) (5.4 cm x 5.8 cm) (Illustration M. Hayeur Smith).

Figure 10: Trefoil Brooch from Snaevhammur (no.3930) (6.1 cm x 4.8cm) (Illustration: M. Hayeur Smith).
A Scandinavian-type trefoil brooch was found in the grave of Ketilstaðir (no. 12436) (Fig. 11). This trefoil brooch is the only Icelandic example to be decorated with acanthus leaf-design and is reminiscent of Carolingian foliage motifs. This particular one has been identified as Scandinavian and classified as a P91 type trefoil brooch (Petersen, 1928: 99; Eldjárn & Friðriksson, 2000: 364).

Figure 11: Trefoil brooch from Ketilstaðir (no. 12436) (3.8 cm x 3.2 cm) decorated with acanthus motifs but said to be a P91 according to Petersen's typology (Illustration: M. Hayeur Smith).

Scandinavian type ringed pins

A grave of Daðastaðir revealed a style of ringed pin not to be confused with other Hiberno-Norse ringed pins found elsewhere in the North Atlantic (no. 15691e/5) (Fig. 12). It is said to have a "plate head" according to Fanning's typology and is roughly lozenge shape (Fanning, 1994: 8). This plate is perforated to accommodate a wire or a slipknot type of loop (ibid.). Fanning identified this pin type as typically Scandinavian (ibid.). Iceland offers other such pins, from the grave at Kroppur (no. 4888), and the female grave at Hrisar (no. 7347).
Figure 12: No. 15691e/5 from Daðastaðir (8.8 cm x 0.5 cm) (Illustration: M. Hayeur Smith)

Figure 13: Scandinavian type pin from Kroppur (No. 4888) (9.25cm x 0.35cm) (Illustration: M. Hayeur Smith).
Belt buckles

The female grave of Daðastaðir also contained an example of a copper alloy belt buckle said to be adorned with two highly stylised animal heads (no.15691-7) (Fig.14). It has parallels from Birka (Eldjárn, 1958: 138). Other Scandinavian type belt buckles from Iceland include a belt buckle from a grave at Kaldarhöfði, (no.13540)(Fig. 16) decorated with Borre style design and said to be similar to a belt buckle from Gokstad (Eldjárn &Friðriksson, 2000: 393). Another belt buckle comes from the grave of Kápa (no.11557)(Fig.15), and from Eyrartigur. The latter three are all from probable male burials.

Figure 14: Belt buckle from the grave at Daðastaðir (15691-7) (2.5cm x 1.5 cm). (Illustration: M. Hayeur Smith).

Figure 15:Belt buckle (no 11557) from Kápa (2.8 cm x 1.95) (Illustration: M. Hayeur Smith).
Figure 16: Belt buckle no.13540 from Kaldarhöfði (7.9cm x 3.5 cm) (Illustration: M.Hayeur Smith).
Oval brooches

Oval brooches form a significant part of Scandinavian items of jewellery and from Iceland 44 are known. Some of these are no longer in existence and have been lost, but were recorded despite their absence in order to gain some insight into their social use and importance in the settlement of Iceland. They have been identified in the table below according to Petersen's typology.

<table>
<thead>
<tr>
<th>Muse</th>
<th>Name of</th>
<th>Item a/b</th>
<th>Typology</th>
<th>Type of Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>5030</td>
<td>Oval</td>
<td>A</td>
<td>P24</td>
<td>Grave</td>
</tr>
<tr>
<td>5030</td>
<td>Oval</td>
<td>B</td>
<td>P24</td>
<td>Grave</td>
</tr>
<tr>
<td>5425</td>
<td>Oval</td>
<td>A</td>
<td>P48</td>
<td>Grave</td>
</tr>
<tr>
<td>5425</td>
<td>Oval</td>
<td>B</td>
<td>P48</td>
<td>Grave</td>
</tr>
<tr>
<td>7931</td>
<td>Oval</td>
<td></td>
<td>P48</td>
<td>Stray find</td>
</tr>
<tr>
<td>245</td>
<td>Oval</td>
<td></td>
<td>P48</td>
<td>Stray find</td>
</tr>
<tr>
<td>3419</td>
<td>Oval</td>
<td></td>
<td>P51</td>
<td>Grave</td>
</tr>
<tr>
<td>89572</td>
<td>Oval</td>
<td>V</td>
<td>P51</td>
<td>Stray find</td>
</tr>
<tr>
<td>12454</td>
<td>Oval</td>
<td></td>
<td>P51?</td>
<td>Grave</td>
</tr>
<tr>
<td>11564</td>
<td>Oval</td>
<td>B</td>
<td>P51a</td>
<td>Grave</td>
</tr>
<tr>
<td>11564</td>
<td>Oval</td>
<td>A</td>
<td>P51a</td>
<td>Grave</td>
</tr>
<tr>
<td>15691</td>
<td>Oval</td>
<td>B</td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>5960</td>
<td>Oval</td>
<td></td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>15560</td>
<td>Oval</td>
<td></td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>2445</td>
<td>Oval</td>
<td>B</td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>659</td>
<td>Oval</td>
<td>B</td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>2445</td>
<td>Oval</td>
<td>A</td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>3419</td>
<td>Oval</td>
<td></td>
<td>P51b</td>
<td>Grave</td>
</tr>
<tr>
<td>290</td>
<td>Oval</td>
<td></td>
<td>P51c</td>
<td>Stray find</td>
</tr>
<tr>
<td>6411</td>
<td>Oval</td>
<td>A</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>6411</td>
<td>Oval</td>
<td>B</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>96</td>
<td>Oval</td>
<td>A</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>96</td>
<td>Oval</td>
<td>B</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>6461</td>
<td>Oval</td>
<td>A</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>1202</td>
<td>Oval</td>
<td>A</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>7346</td>
<td>Oval</td>
<td></td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>6461</td>
<td>Oval</td>
<td>B</td>
<td>P51c</td>
<td>Grave</td>
</tr>
<tr>
<td>15691</td>
<td>Oval</td>
<td>A</td>
<td>P51d</td>
<td>Grave</td>
</tr>
<tr>
<td>4872</td>
<td>Oval</td>
<td></td>
<td>P51e</td>
<td>Grave</td>
</tr>
<tr>
<td>1202</td>
<td>Oval</td>
<td>B</td>
<td>P51f</td>
<td>Grave</td>
</tr>
<tr>
<td>371</td>
<td>Oval</td>
<td></td>
<td>P51g</td>
<td>Grave</td>
</tr>
<tr>
<td>99999</td>
<td>Oval</td>
<td>A</td>
<td>P51g/p51</td>
<td>Grave</td>
</tr>
</tbody>
</table>
Table 9: Table of oval brooches for Iceland.

Tongue shaped brooches are used in a similar fashion to oval brooches. There are two from Iceland decorated with Jelling style beasts. They come from the grave at Kornsá (no.1780a/b) and will be discussed in Chapter 6.

Round, penannular and Urnes style brooches

Iceland has 6 small round brooches, 2 penannular brooches and 2 Urnes style (presented above) brooches that can be attributed to Scandinavian provenance. The round brooches are from the grave of Stóra Sandfell (no.256821) (Fig.17), made of silver and decorated with filigree and granulation motif not unlike rounds brooches found at Haithabu (Cappelle, 1968:Tafel 27 1,2); from the grave of Ytri-Tjarnir (no.14317) (Fig.18) made of copper alloy with parallel designs from Haithabu (Cappelle, 1968: tafel 27, 4); and two very similar P128 brooches, one from the grave at Kálfborgarár (no.740)(Fig.19) and Þorlótsstaðir (no. 14034) (Fig.20). The round brooch of Valþórsstaðir (no.600) was not examined during my visit to the National Museum of Iceland. It is said to be the largest of Icelandic round brooches with no Norwegian parallels (Eldjár & Friðriksson, 2000: 368-369), though it is similar in design to a P 120 (Petersen, 1928:116). Last but not least the
round brooch from Miklaholt (no.6463) of Scandinavian type now housed at the National Museum of Copenhagen.

Figure 17: Round brooch from Stóra Sandfell (no 256821)(2.9 cm x 2.9) (Illustration M.Hayeur Smith).

Figure 18: Round brooch from Ytri-Tjarnir (no. 14317) (2.5 cm x 2.8cm) (Illustration: M. Hayeur Smith).
Iceland offers two examples of penannular brooches which are slightly problematic. One is from Pjorsárdalur (no.97) (Fig.21) and only the pin portion remains though it is thought that the rings were adorned with ball headed terminals. The other is from the grave of Silastaðir\textsuperscript{12} and made of iron also a “ball typed” brooch and was described as having animal headed terminals which were not visible during the analysis. These ball type brooches are said to be of Insular inspiration, introduced into Scandinavia at the beginning of the 10\textsuperscript{th} century and manufactured subsequently in situ (Graham-Campbell, 1984: 32). They are according to this author not to be attributed to the British Isles, as their local Scandinavian production became widespread (Graham-Campbell, 1984: 38).

\textsuperscript{12} Discussed in chapter 7 p.343.
Figure 21: Pin portion remaining from the penannular brooch from Bjorsárdalur (no.97) (7 cm x 1.1 cm)(Illustration: M Hayeur Smith).
Pendants

Pendants include one cross pendant of probable Scandinavian origin (no.2033)\(^\text{13}\), 4 disc pendants from a same grave at Granagil (nos.5217-5218) (Fig.22, 23). One is decorated with Jelling style motif (P158) and three decorated with Borre style. The grave from Rangá (no. 12384) offered an example of a pendant decorated with a stylised man’s head that is also discussed in depth under magico-religious jewellery in Chapter 6\(^\text{14}\).

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{granagil_pendant.png}
\caption{Granagil pendant (no.5217 a and b, c has gone missing) (2.6 cm x 3.2 cm) (Illustration: M.Hayeur Smith).}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{granagil_pendant2.png}
\caption{No. 5218 from Granagil (3.3 cm x 2.65cm)(Illustration M. Hayeur Smith).}
\end{figure}

\(^{13}\) See chapter 6 p.297

\(^{14}\) See p.298.
Strap ends

The strap end from Eyrartigur (no. 95-?) (Fig. 24) has been identified as a possible Scandinavian-type strap end. It is very similar to other strap ends with parallels in the British Isles (see below) which has lead me to speculate that the others could be Hiberno-Norse in origin, while this one could be Scandinavian. Vaguely similar strap ends were classified by Petersen (1928): P135 and P134, though their resemblance to the Icelandic one is not striking (Petersen, 1928: 125). The Icelandic example is decorated with a row of Borre style animal heads and comes from the wealthy male grave.

Figure 24: Eyrartigur strap end (4.6cm x 1 cm) (Illustration: M. Hayeur Smith).
Sword chapes and sword hilts

Two sword hilts have been identified as Scandinavian craftsmanship. They are the two most elaborately decorated swords for all of Iceland. One is from the double male boat grave from Kaldárhofði (no. 13535) (Fig. 25), while the other is from a wealthy male burial at Hafurbjarnarstaðir (no. 559) (Fig. 26). The Kaldárhofði sword is a Petersen O type Sverd 104 decorated with copper alloy and silver inlay on iron (Eldjárn & Friðriksson, 2000: 325). This type of sword has been found in Norway and in Ireland. Eldjárn thought the hilt was possibly Anglo-Saxon, and said that Petersen had attributed it to the first half of the 10th century (ibid.). The sword from Hafurbjarnarstaðir is an S-type Sverd 114 according to Petersen's typology, and decorated with Jelling style as well as silver inlay and copper alloy wire (ibid.). Eldjárn mentioned that Petersen knew of 22 such swords in Norway and attributed them to the 10th century (ibid.).
Figure 25: Sword and hilt from Kaldárhöfði (13535) (hilt: 13.2cm x 6.4cm) (Illustration: M. Hayeur Smith).
Figure 26: Hafurbjarmarstaðir sword (no.559) on left (hilt: 17.9cm X 11.1cm) and on the right the base with the sword chape still attached (chape: 8.2cm x 4.2 cm) (Illustrations: M.Hayneur Smith).
The Hafurbjarnarstaðir sword was found with the sword chape (no. 559) still intact and attached to the blade making the sword a remarkable find (Fig 26). The sword chape, while very well preserved, is copper alloy and decorated in the Jelling style (Eldjár, & Friðriksson, 2000: 331). Similar to the Hafurbjarnarstaðir sword chape is the chape from Vestfjörður also copper alloy and decorated in the Jelling style. The Vestfjörður (no. 3048) (Fig 6), Kirkjubölsdal (no. 3582) (Fig 27), and Tannstaðabakki (no. 2756) (Fig 28) sword chapels are all three stray finds for which no context is known.

Figure 27: Kirkjubölsdal sword chape (no. 3582) (6.4 cm x 4.2 cm) (Illustration: M. Hayeur Smith).
Bracelets and beads

The place of origin of beads is difficult to assess. One can only assume that most beads of glass, amber, rock crystal, carnelian were imported from Scandinavia as there is evidence for their fabrication in the trade centres of that region.

A bracelet from Espeholl has been classified under Scandinavian origin (no. 10891) (Fig.29). It is not unlike silver bracelets recovered from hoards.
Jewellery of Insular origin

Insular material is the second most significant group of items accounting for 31 pieces of jewellery in this corpus. This reflects the cultural make up the North Atlantic Islands. Insular jewellery and metal-work is found in Scandinavia and one might argue that there is nothing unique about the fact that such objects were found in Iceland. While this question will be discussed in greater length below, I believe this to be a reflection of a more diverse cultural community during the landnám. One could argue that due to certain Insular items of jewellery, there exists a possible "North Atlantic" assemblage in burials that differs slightly from the rest of Scandinavia.

Broadly speaking there are eight artefact categories of strictly Insular origin: bells, pins, bracelets, penannular brooches, strap ends, sword pommels, trefoil brooches and a miscellaneous category. The most representative of Insular items are the ringed pins.
Table 10: List of Insular items in the Iceland corpus and quantities.

<table>
<thead>
<tr>
<th>Jewellery</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bells</td>
<td>3</td>
</tr>
<tr>
<td>Bone pin</td>
<td>1</td>
</tr>
<tr>
<td>Bracelet</td>
<td>1</td>
</tr>
<tr>
<td>Penannular brooches</td>
<td>1</td>
</tr>
<tr>
<td>Stick pin (from hoard)</td>
<td>1</td>
</tr>
<tr>
<td>Ringed pins</td>
<td>16</td>
</tr>
<tr>
<td>Strap ends</td>
<td>4</td>
</tr>
<tr>
<td>Sword pommel</td>
<td>1</td>
</tr>
<tr>
<td>Trefoil brooches</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>1</td>
</tr>
</tbody>
</table>

Bells

Three bronze bells were discovered in Iceland and all are from burial contexts. Eldjárn (1956), Magnússon (1966), and Batey (1988, 1989) have described these bells as coming from the British Isles. Batey identified a parallel to the Icelandic bells from Freswick Links in Caithness and offered other examples from England (Batey, 1988:214-215). This author put forth the idea that the Freswick Links bell may have been of Irish inspiration and was a hybrid Norse variety dating back to the 10th century (Batey, 1988:215). However, in light of more recent research by the same author, it now seems less likely that there was any Irish inspiration in the fabrication of these bells (C.E.Batey, personal communication, 2001).

The closest Icelandic example to the Freswick Links bell is from Brú from Arnesýsla (no.1198) (Fig.30) while the other comes from the grave at Kornsá discovered in 1879 during the construction of a house. The bell from Kornsá
(no. 1781)(Fig.31) was found with other items from the British Isles, notably a weight scale in what has been identified as a female grave. Crawford (1987) discussed the presence of these weight scales in the burial material of Scotland. She argued that there was a contrast between burial materials between the Western and Northern Isles. The graves from the Western Isles frequently displayed weight scales as well as Celtic material indicating that the people in the Western Isles had stronger connections with Irish and Scottish culture resulting from inter-marriage and trade (Crawford, 1987:126).

Figure 30: The bell from Brú (no.1198) (2.6cm x 2.6 cm) (Illustration: M. Hayeur Smith).

Figure 31: Bell from Kornsá (no.1781) (2.65 cm x 1.95 cm) (Illustration: M. Hayeur Smith).
The bell no.1964:126 (Fig.32) is from the Vatnsdalur burial in Patreksfjörður, one of the five boat burials discovered in Iceland. This multiple burial was thought to be for one woman, with the remaining bodies placed subsequently by grave robbers who collected them from surrounding burials (Magnússon, 1967: 31). Including the bell one other artefact comes from the British Isles, a small lead weight with a green inlaid cross (Magnússon, 1967: 32). The Patreksfjörður region is mentioned in the Landnámabók, people from the Viking settlements in the British Isles are said to have settled it (ibid.).

Unnur, nicknamed the “Deepminded” settled the Dalir district in Western Iceland. She herself was not of Irish birth, but was tied to Ireland through marriage and lived in Scotland before moving to Iceland (Kristjánsson, 1998:267). It has been argued that her settlement in this district was the most important settlement of people from the British Isles (ibid.). By the same token one of Unnur’s family members, Orlygr, is said to have named the place Patreksfjörður after St Patrick bishop of the Hebrides and his foster-father (Kristjánsson, 1998:267).

Figure 32: Vatnsdalur bell (no. 1964:126) (2.1cm x 1.9 cm) (Illustration: M. Hayeur Smith).
Pins

A bone pin from Ymaberg (no. 11296) is very similar to a pin found in Jarlshof (Fig. 33). It is not certain where these bone pins are originally from and its possible that their North Atlantic presence has nothing Insular but were of a style that made its way into the new colonies.

Figure 33: Bone pin from Ymaberg (no. 11296) (16.3 cm x 1.4 cm) (Illustration: M. Hayeur Smith).
Similarly difficult to assess is a fragmented ringed pin (?) from the Miðhús hoard, and the only example of silver pin in Iceland. This pin was not included in the compilation presented in the new edition of Kuml og Haugfé (2000) but has, what might be defined, as a polyhedral head.

**Ringed pins**

The compilation of ringed pins in the new edition of Kuml og Haugfé (2000) requires some clarification with reference to this corpus. Eldjárn and Friðriksson, offer a total of 20 pins for Iceland, with 8 from a grave context and another 12 as stray finds. In this compilation it must be pointed out that 3 of the grave find pins are of Scandinavian provenance and therefore, do not figure as Hiberno-Norse or from the British Isles. Another 4 of these 20 pins are of possible Medieval origin, and while they were included into this corpus, may not belong to the period under discussion.

Strictly speaking, the typical ringed pins from the British Isles amount to 16. In the Icelandic material the majority of ringed pins are the plain-ring polyhedral head variant, such as the pin from Hafurbjarnarstaðir (no.13667) (Fig.34), Eyrartigur (no.95-364) (Fig. 35), and Gnúpverjaafrétt (no. 5396)(Fig.36). It is said that the plain -ringed polyhedral head variant constitutes the largest group of ringed pins from the Dublin sites (Fanning, 1994: 25). Furthermore, this same author has argued that this type of pin was the most typical pin associated with the Insular areas settled by the Hiberno-Norse (ibid.). Fanning has suggested that this model was linked to the western sea-routes during the 10th century (Fanning, 1983: 330).

15 See p.153 of this chapter.
Figure 34: No. 13667 from Hafurbjarnarstaðir (15cm x 0.45 cm) (Illustration: M. Hayeur Smith)

Figure 35: Ringed pin (no. 95-364) from Eyrartigur (11.7 cm x 1.8 cm) (Illustration: M. Hayeur Smith).
Figure 36: Ringed pin from Gnúpverjaafrétti (no. 5396) (17.3 cm x 1.9 cm) (Illustration: M. Hayeur Smith).
Other types include the equally popular plain-ringed baluster head, such as the pin from Þorljótsstaðir (n.736)(Fig.37) described by Fanning (1994); one loop headed pin with a link ring from Þuriðarstaðir (no.1977:52) (Fig.38) and one kidney ring type from Hlaðir in Eyjafjarðarsýsla (no.13098)(Fig.39).

**Figure 37:** Baluster headed ringed pin described by Fanning from Þorljótsstaðir (no.736) (13.7cm x 1.7cm) (Illustration: M. Hayeur Smith).
The grave at Hof is the only one where a ringed pin similar to the one found at Hof in a 19th century grave at Kalland (A10898) (Fig. 38). There appear to be no parallels to these from graves in Scotland, at least as far as Scotland (Dawson 1993). The distinctive nature of these items may indicate that they were produced in the Scandinavian area, possibly in the eastern part of the region, and brought to the north of England in the form of grave goods or as trade goods from the Viking Age.

**Figure 38:** Pin from Þuríðarstaðir (1977:52) (Sveinbjarnardóttir, 1992:46, fig.7)

**Figure 39:** Kidney ringed pin from Hlaðir (no. 13098) (15.45 cm x 1.5 cm) (Illustration: M. Hayeur Smith).
Trefoil brooches

The grave of Hafurbjarnarstaðir containing the ringed pin described above, also contained other evidence of Insular jewellery such as a trefoil brooch (no.13666) (Fig.40). An almost identical trefoil brooch to this one was found at Höll in Suður-Mulasýsla as a stray find (A10696) (Fig.41). There exists a parallel to these two pieces from Jarlshof in Shetland, as well as England (Paterson, 1997: 649)16. It is thought that these trefoils brooches were produced in the British Isles, though of Scandinavian influence (ibid.). The two items of jewellery (ringed pin and trefoil brooch) in the Hafurbjarnarstaðir grave assemblage are thought both to be from the British Isles.

Figure 40: Trefoil brooch no.13666 from Hafurbjarnarstaðir found with pin displayed above (3.9cm x 4.8 cm) (Illustration: M. Hayeur Smith).

16 This grave is discussed in greater detail in chapter 6 p.271.
Penannular brooches

The Icelandic corpus offers several examples of penannular brooches most of which are not directly connected with the British Isles. Strangely enough there is only one example of the Celtic brooch type labelled the "Tara" type such as the Westness brooch from Orkney, a variety which is found in Viking burials in the Northern and Western Isles of Scotland (Stevenson, 1968: 26). This is somewhat surprising given the number of settlers from this region. Despite this fact the only example of a Tara-type brooch available in the Icelandic material comes the Sandmuli hoard (no.5884) (Fig.42), one of 36 pieces of hack silver. It is evidently cut up, and was thought to come from Ireland (Eldjárn, 1956:367-368). The brooch was reworked at some point as it displays a small Mammen-style beast chased into the original brooch.
possibly by Norse craftsmen in the 10th century (Graham-Campbell, 1995:43).

Figure 42: No. 5884 penannular brooch fragment from the Sandmúli hoard (7.5cm x 3.4cm). To the right is the detail of Mamman style beast chased in by a Norse craftsman (Illustrations: M. Hayeur Smith).

**Strap ends**

Four strap ends from the Icelandic corpus have direct links to the British Isles. The strap end from Kroppur in Eyjafjardásýsla (no.4888) (Fig.44) has a parallel to one from Kneep in the outer Hebrides (C.Paterson, personal communication, 2000). The Kneep (Fig.43) example is in better condition than is the Kroppur strap end that has lost all the decorative bosses. All that remains of these decorative features are circular depressions where the bosses were once fastened. The Kroppur strap end is riveted together at one extremity and has the remains of leather strap caught between the pieces of bronze. Its most peculiar feature is that it was found in a burial context with a ringed pin type Petersen c attached to it.
From the grave at Þorljótsstaðir are two items of possible Insular origin both of which are strap ends. No. 14013d (Fig. 45) is similar to a strap end from Colonsay published by Grieg in 1940 (Grieg, 1940: 61). The one from Colonsay is mounted on a buckle and it more than is likely that the Icelandic example was as well. In terms of their designs they are very similar. The Þorljótsstaðir example has two rivets one of which would have held the buckle in place.
Figure 45: Strap end from Þorljótsstaðir (no. 14013d) (6.2 cm x 1.4 cm) similar to one from Colonsay (Illustration: M. Hayeur Smith).

The second strap end from Þorljótsstaðir (no. 14013 e)(Fig 46) is similar to a strap end from Stafn (no. 11495)(Fig. 47) and according to Eldjárn another like it was found at Stöng but was not recorded in this corpus (Eldjárn, Friðriksson, 2000: 395). These items have a parallel from the Brough of Birsay in Orkney.
Figure 46: Strap end from Þorlóttstaðir (no. 14013e) (5.4 cm x 1.25 cm) (Illustration: M. Hayeur Smith).

Figure 47: Strap end from Stafn (no. 11495) (Illustration: M. Hayeur Smith).
Both Icelandic strap ends consist of double sided elongated pieces of cast copper alloy. Each side displays a flat rectangular panel decorated with a geometric "step" motif and an animal head terminal. The animal heads have square snouts with nostrils, two rounded ears, and round circular eyes with dots in the middle. Like the Icelandic examples the Brough of Birsay strap end (no.432) also tapers into a small animal head. It was described by Curle (1982) in the following manner:

"..a strap end in the form of an animal head with laid back rounded ears" (Curle, 1982: 78). The motif on this strap end has a small square panel and angular interlace (ibid.). Parallels to this piece are said to come from Wirral in Cheshire and from Stokestown Crannog in Ireland "(Curle, 1982: 78).

In the British Isles the animal head terminal strap ends are common in Anglo-Saxon assemblages and other mixed Anglo-Norse examples exist from York (Mainman and Rogers, 2000: 2569).

What distinguishes the strap ends from Stafn, Þorlótsstaðir and the Brough of Birsay from the others, are the flat square panels containing a geometric motif. The Icelandic examples are decorated with a step motif while the strap end from Orkney is adorned with angular interlace.

The step pattern on the Stafn and Þorlótsstaðir strap ends is a common design found on Irish ringed pins. Thomas Fanning (1994) described this pattern:

"A pattern formed of straight lines making successive angular bends to form a series of interlocking steps flanked with straight lines." (Fanning, 1994: 11).

This same step pattern can be seen on other Icelandic Viking period artefacts notable the sword pommel from Knafahólar (no.3958) (Fig.48) another Insular item found in this corpus. Eldjárn (2000) had identified this piece as Anglo-Saxon with parallels in Scandinavia, and Jan Petersen knew of 14 in Norway alone (Edljárn and Friðriksson, 2000: 329). While this type of decorative motif appears very frequently on the lower shanks of ringed
pins, Fanning (1994) argued that it was a popular motif used to decorate a multitude of objects and listed among a few: a bone comb from period 1a Lagor, a cross-slab from Clonmacnoise, on a portrait of Christ from the book of Kells, and on wood carvings from Dublin (Fanning, 1994:26). This same motif was identified on Viking sculpture in England as well as on whale- bone plaque from Scar in Orkney retrieved from a Norse burial context (Fanning, 1994: 26; Owen and Dalland, 1999:74-75). Fanning traces this motif on material dating from the 7th to the 11th century AD, but also points out its popularity prior to the Viking Age (Fanning, 1994: 27). This is confirmed by Anglo-Saxon metalwork, and specifically round brooches from the 6th and 7th century. The step motif is a design used to decorate the rims of brooches furthermore, the cloisonné work on some of the brooches also displays the same step design (Avent, 1975). Perhaps it originated in Anglo-Saxon cloisonné work, to be transformed into a chased design used in Ireland as well as elsewhere in the British Isles? One might suggest that these strap ends are therefore, a hybrid-Norse variant that developed in the British Isles.
Figure 48: Sword pommel from Knafahólar (no.3958) (7.75cm x 1.5cm ) note the step design decorations (Illustration: M. Hayeur Smith).
Bracelets and miscellaneous items

One bracelet in the corpus can be labelled as Insular: the lignite bracelet from Álaugarey (no. 11565) (Fig. 49)\textsuperscript{17}. This bracelet has a parallel from Birka (Gräslund, personnal communication, 2002).

Figure 49: Lignite bracelet from Álaugarey (no. 11565) (7.6 cm x 7.6 cm) (Illustration: M. Hayeur Smith).

In the "miscellaneous items" category a bronze object was included found on the farm site of Búriðarstaðir. It is described as a bronze object (no. 1974:115), said to contain some lead, unevenly rounded, flat and decorated with gold gild on the upper side (Sveinbjarnardóttir, 1992: 44). The decorated side is slightly elevated and the central areas are hollow suggesting that it was once intended to hold a stone. Four loops decorate the central portion (ibid.). Sveinbjarnardóttir suggested that the piece may have been Celtic forming part of a penannular brooch or other item of jewellery to be subsequently transformed into a weight (ibid.).

\textsuperscript{17} See chapters 6, p. 301 and 7, p. 319.
Baltic, Eastern European, and Oriental jewellery

Baltic, Eastern European and Oriental jewellery point towards the eastern Viking world notably, Gotland, Finland, Estonia, Latvia, Russia and certain regions of the Middle East. I have decided to treat this category together, as it is uncertain where these items were initially from.

Baltic

Attributed to the "Baltic" and East Europe are 13 items, several of which are unclear. The brooch from Vað (no.4340) (Fig.51) is adorned with chains suspended from a loop at the back of the brooch, which in turn is mounted on a small copper alloy panel decorated with a Borre style beast. According to Eldjárn brooches with chains such as this example from Vað and Gautlönd (no.6355) (Fig.52) are a mixture of Norse and Baltic inspiration (Eldjárn & Friðriksson, 2000: 368). It must be noted that Petersen himself included these two brooches into is own typological study and were identified as P126a and P126b (Petersen, 1928: 121). Similar to these two round brooches is the brooch from Kálfafelli (no.6976) (Fig.53).
Figure 51: Round brooch from Vað (no. 4340) (brooch: 3.6cm x 3.6 cm; chain: 15.5 cm, plate: 2.3cm x 1.7 cm) (Illustration: M.Hayeur Smith).
Figure 52: Round brooch from Gautlönd (no. 6355) (brooch: 3cm x 3 cm; chain: 13 cm) (Illustration: M. Hayeur Smith).
Figure 53: Round brooch from Kálfafelli (no. 6976) (3.5 cm x 3.5 cm) (Illustration: M. Hayeur Smith).

Items of weaponry include the decorated silver inlay spearhead from Kotmúla (no. 196084) (Fig. 54) one of four existing in the world. It is said that this spear was analysed by Marta Strömberg in 1961 and resembled specimens made in the Baltic area, possibly Gotland itself (Gestsson, 1962: 80-81), though it was recently suggested that it had a middle Swedish origin (Gräslund, personal communication, 2002). A similar Icelandic spearhead exists also adorned with silver and copper wire inlay (no. 4195), though it is not known if it too is of Baltic origin. The sword chape from Lundi (no. 5251), attributed to this region, was believed to be by Shetelig similar to sword chapés and metal-work from Gotland (Eldjárðar & Friðriksson, 2000: 335).

Four thread buttons (three of silver and one of gold) found in at the burial site of Kápa (no. 9089-11556) (Figs. 55/56) are said to have East European associations. Furthermore, it is thought that the fashion of wearing such buttons could have originated in the Far East (Eldjárðar & Friðriksson, 2000: 192).
Similar buttons are said to have been found in Sweden, though none are known from Norway (Gräslund, personal communication, 2002).

Figure 54: Spear head from Kotmúla (no. 1960 84) (socket: 12.5 cm x 2 cm) (Illustration: M. Hayeur Smith)
Figure 55: Gold thread button from Kápa (no. 11556) (1.6cm x 1.5 cm) (Illustration: M. Hayeur Smith).

Figure 56: Three silver thread buttons from the same grave at Kápa (nos.9089a,b,c) (1.4 cm x 1.2 cm)(Illustration: M. Hayeur Smith).
From the Baltic area are two penannular brooches, probable "Baltic series" type according Graham Campbell's (1984) classification. They are described as having "pins little greater in length than the diameter of their hoops" (Graham Campbell, 1984: 31). One of these is from Austasta-Reyðarvatn (no. 6886) (Fig. 57) with its extremities twisted upwards in a loop, and from Gunnarsholt (no. 358) (Fig. 58) decorated with animal headed terminals. The Austasta-Reyðarvatn example has parallels from Haithabu (Cappelle, 1968: tafel 26-no. 6)

Figure 57: Brooch from Austasta-Reyðarvatn (no. 6886) (4.75cm x 5.05cm) (Illustration: M. Hayeur Smith).

Figure 58: Penannular brooch from Gunnarsholt (no. 358) (4.4cm x 3.8 cm) (Illustration: M. Hayeur Smith).
Oriental jewellery

Items that can be attributed to "Oriental" provenance are pieces that may have originated in the area of Samarcand. Precious metals from this region in general come in the form of silver coins found in abundance in the silver hoards of Sweden and Gotland (Burström, 1993). From Iceland Cufic coins are present though not in great numbers. Two Icelandic examples were transformed into jewellery. Perhaps these items of jewellery should, therefore, not be classified as Middle Eastern as they may have been "transformed" in Scandinavia and adapted to Scandinavian fashions of jewellery. The grave of Vatnsdalur revealed a small cufic coin with a hole drilled at the top so as to be worn as a pendant (no. Þjms ónúm) and the bead necklace from Mjoidalur (no.10913-10914a/b) offers evidence of cufic coins mounted with various beads of glass, and rock crystal (Fig. 59).

Figure 59: Bead necklace from Mjoidalur (no. 10913-10914a/b) (22 cm x 1.8 cm; coins: 2.7 cm) including cufic coins (Illustration: M. Hayeur Smith).
More accurately identified is the small heart shaped stud button decorated with a palmette design from Þurlóðarstaðir in Þórsmörk (no.1974:232) (Fig.61) (Sveinbjarnardóttir, 1992: 45). According to this author this type of stud has been found in Scandinavia and is said to be of “oriental type” dated to the 10th century (Jansson 1975-7, Figs 243 & 244 in Sveinbjarnardóttir, 1992: 45).

Figure 60: Heart shaped stud button from Þurlóðarstaðir (no. 1974:232) (Sveinbjarnardóttir, 1992: 46, fig.7).

Jewellery from Continental Europe

Three-possibly four items of metal-work have been attributed to continental Europe and more precisely of Frankish origin. The strap end from Kaldarhöfði (no.13541) decorated with acanthus design is possibly of Frankish inspiration (Fig.61), and similar to acanthus ornament found at Haithabu (Capelle, 1968). Eldjárn thought this tongue shaped strap end might have been the product of Norse craftsmen utilising Frankish design, as it is similar to P132 (Eldjár and Friðriksson, 2000: 394).

Also decorated with acanthus motifs is the trefoil brooch from Ketilstaðir (no. 12436) (fig. 11), classified as a P91 by Petersen. It too could be of possible Frankish origin (Gráslund, personal communication, 2002).
The belt buckle from Alftaðir (no. 13473) (Fig. 62) was thought to be a Carolingian import rather than the product of a Norse craftsman, and no examples were known at the time Eldjarn produced his thesis (Eldjarn & Friðriksson, 2000: 393). This small buckle is silver in colour though the main metal of the brooch is copper alloy it was therefore, either silver or tin-plated.
A sword of unknown provenance with the name ULFBERHT inscribed and visible on the blade (Fig. 63). These sword blades were said to have been produced in Continental Europe with the large capital letters on the blades testifying to the craftsmen and workshops where they were produced (Kirpicnikov, 1970: 58-59). The ULFBEHRT workshop was said to be the largest, and these Frankish blades made their way all over Northern Europe and the Viking world where they were assembled, by local Norse craftsmen, with sword hilts and pommels (Kirpicnikov, 1970: 61).

![Figure 63: Sword of unknown provenance with the inscription ULFBERHT inscribed on the blade (hilt: 16.3 x 10.2) (Illustration: M. Hayeur Smith).](image-url)
Jewellery from Iceland

The problems identifying provenance or style discussed above are apparent in this last category of items. The identification of this material comes from my own research and knowledge of silversmithing, from Eldjárn’s analysis, as well as from research carried out on beads in Iceland.18 What has been labelled, as possibly Icelandic in origin has nothing to do with style of jewellery but rather with craftsmanship and materials. Much of the design can be attributed to Scandinavia.

Of possible Icelandic manufacture 18 items were counted19, and are distributed as follows:

<table>
<thead>
<tr>
<th>Jewellery</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beads</td>
<td>4</td>
</tr>
<tr>
<td>Bone pins</td>
<td>7</td>
</tr>
<tr>
<td>Bracelets</td>
<td>2</td>
</tr>
<tr>
<td>Ringed pin</td>
<td>1</td>
</tr>
<tr>
<td>Sword chape</td>
<td>1</td>
</tr>
<tr>
<td>Thor’s hammer</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 11: List of possible locally made jewellery from Iceland and numbers.

18 Much of this material is discussed in greater depth in chapter 7, p.351-361 of this thesis.
19 In chapter 7 only items made of metals are included in the possible locally made items. Furthermore the items enumerated in that chapter are merely suggestive of possible local manufacture.
While all these items are discussed in depth in Chapter 7, I wish only to point out that the ringed pin indicated here is a fragmented ring from the Reykjavik site while the style is probably Insular. Furthermore, the beads are made of local material such as the bead from Bárðardal (no. 11704) (Plate 1), which is presently under analysis by Heiðardóttir (E. Heiðardóttir, personal communication, 2000). The bracelets, while possibly locally made, have parallels from Haithabu (no. 11) (Capelle, 1968: Tafel 24) The bone pins are another item that by their very material are possibly of local manufacture whale bone and walrus ivory being materials which were readily available in the new colony. (Fig. 64)

Plate 1: Bead from Bárðardal made from local Icelandic stone (1.9cm x 1.1cm) (Photo: M. Hayeur Smith).
The Icelandic material in relation to the rest of the North Atlantic and Viking world.

With the exception of Greenland, Iceland is not unique in the North Atlantic to offer an array of different types of jewellery from various regions of the Viking world. In relation to the Faroe Islands and to Scotland the jewellery assemblages found in Icelandic graves appear to fit into an overall pattern that I believe can be found across the North Atlantic and helps to set this area slightly apart within the Viking world. But in order to verify this hypothesis and compare how unusual or how similar Icelandic burials are to the rest of the Viking world, a brief discussion of burial customs is required from other Scandinavian settlements.
As it is generally assumed that the settlers of Iceland originated in Norway, a review of two Norwegian burial sets will be discussed here: Kaupang (Blindheim, 1981) and northern Norway (Sjøvold, 1974). By the same token I will review burial customs in other North Atlantic settlements, notably Ireland and Scotland. This selection of Scandinavian areas of settlement will allow for a comparison with the Scandinavian homeland on one hand, and on the other hand, different North Atlantic Norse colonies. For information regarding the Icelandic burials, the more recent edition of *Kuml og Haugfé* by Eldjárn and Friðriksson (2000) will serve as the basic text as it is the only complete catalogue of Icelandic burials published to date. For other regions, due to the uneven nature of available published source material, only general conclusions can be reached. However, they are still sufficient to provide outlines for useful interregional comparisons.

**Norway**

The two sets of burials under discussion in this section differ in their nature: one is a trade centre, the other a rural region. It could be argued that the former, Kaupang, being a trade centre, underwent a particular dynamic and social reality which has little in common with the rest of Norway and differs from the Icelandic context where trade centres of this nature have not yet been found. The reason for this selection of sites stems from the fact that these are two detailed studies where burial data is readily available, and may offer some insights into burial practices from the Icelandic settlers' homeland.

**Kaupang**
The settlement at Kaupang is situated in south-eastern Norway and was first excavated by Nicolaysen in the 19th century and followed by Charlotte Blindheim in 1981. Prior to her excavations, the site and notably the burials had been excavated by Nicolaysen in the 19th century. While being a significant trade-centre for Norway, it was smaller in proportion to other
Scandinavian trade centres such as Birka or Hedeby (Graham-Campbell, 1989: 99). Surrounding the settlement and located on four farms of the Kaupang area were several cemeteries displaying a variety of burial practices (Blidheim, 1981: 68). The largest cemetery was situated on the land of north Kaupang, where 115 mounds were recorded as early as 1867 (ibid.). Four types of burial practices were identified including: cremation patches in barrows, cremation under flat ground, inhumation in barrows and finally inhumation in flat ground (Blidheim, 1981: 89). Blindheim noted that the variety present at Kaupang was not dissimilar to that of Birka (Blindheim, 1981: 92). Kaupang also testified to numerous boat burials (ibid.).

At Kaupang some attempt was made to differentiate social statuses from two dominant burial types: cremation burials and inhumation. The author concluded that the differences in inhumation and cremation were not reflecting differences in wealth (with inhumation graves representing a wealthier stratum), but instead symbolised different social groups (Blindheim, 1981: 121). Later on she suggested, as an example of these social groups, that the boat burial zones at Bikjholbergene, were the burials of the families of merchants (Blindheim, 1981: 124).

Blindheim also reviewed the question of grave goods, comparing them to other sites and parts of mainland Scandinavia. The wealthy female graves from Birka were said to have no parallels at Kaupang, and that overall the pattern of burial at Kaupang tended to be more modest in grave goods (Blindheim, 1981: 107). Relating to specific objects in graves, combs were said to be lacking at Kaupang, while iron products were abundant. The abundance of iron objects in graves was noted all over Norway for the Viking period, a situation which is not mirrored in Sweden (Blindheim, 1981: 122).

Imported items were also found in Kaupang's graves, occurring in the graves of both sexes but with men's graves offering a slightly higher proportion.
Interestingly enough, foreign items relating to Christianity occurred more often in inhumation burials, leading the author to question this pattern. Blindheim (1981) felt that there was a correlation between Christianity and its influences on peoples' burial practices, and argued that the access to Christian ideology influenced those who travelled abroad, which in turn may have facilitated a transition from cremation to inhumation (Blindheim, 1981: 125). As a provisional conclusion it was suggested that in the 8th and 9th centuries most foreign grave goods were from Continental Europe with a small number stemming from the British Isles (Blindheim, 1981: 179). However, in the 10th century objects from Continental Europe declined and items from the west and east increased (ibid.).

Arctic Norway
The second Norwegian grave assemblage to contrast with the Icelandic material (see discussion below) is based on Sjövold's (1974) analysis of the known Viking Age graves from Arctic Norway. Looking at Sjövold's results for the Viking period in Arctic Norway (a region extending from 66° N to the 70° N) he noted a return to an older form of burial; the barrow, making it a majority during this period (Sjövold, 1974: 182-188). Flat graves were also found although to a lesser extent (ibid.). Areas with the largest concentrations of barrows were Helgeland with 54-as opposed to 20 flat graves in the same areas, and Salten with 45 barrows and 31 flat graves (Sjövold, 1974: 186). Grave cists were also mentioned in connection with flat graves, but do not figure as the norm.

Inhurnation burials predominate over cremation burials, although some cremations were also found (Sjövold, 1974: 189). Cremations were said to be found in either of the grave types mentioned above (ibid.) This image contrasts somewhat with Kaupang where more equity was noted between cremation and inhumation burials.
Some boat burials were recorded for Arctic Norway, but Sjøvold was cautious on this issue for several reasons: well preserved boat burials were not found in graves, although some information was recorded regarding their shapes and sizes based on the presence of rivets. He therefore pointed out that in some instances he may have been dealing with boat burials but that it could not be stated with any certainty (Sjøvold, 1974: 191). Shetelig adopted a far less restrained position on this topic and recorded 47 finds as boat burials. Sjøvold reduced Shetelig's numbers to 16 as certain boat burials, 9 as probable and another 12 as possible ones. Another 10 he felt were dubious (Sjøvold, 1974: 191).

Grave offerings were reviewed at length in Sjøvold's analysis of Arctic Norwegian Viking Age material. Many finds mirrored those from the Icelandic context as well as the overall pattern found throughout the Viking world. This pattern constitutes the "general" Norse grave assemblage, in which jewellery and textile and/or agricultural implements are found with women, and weapons and craft and/or agricultural implements are associated with men. The types of jewellery described are relatively similar throughout the Viking world and include items such as oval brooches, trefoil brooches, penannular brooches, and the types of jewellery discussed under "Scandinavian jewellery" of this chapter.

Beads were present in the Viking period graves of Arctic Norway although with an uneven distribution. Large numbers of beads were identified for the 9th and 10th centuries while they seemed to have disappeared by the 11th (Sjøvold, 1974: 228). This pattern was consistent with the Icelandic material of the same time frame. Viking Age beads in Arctic Norway were made from amber, glass and terra cotta (ibid.), once again similar to the Icelandic context, though semi-precious stones (rock crystal, carnelian) are also recorded from Iceland. Other particularities of the Northern Norwegian grave
material of interest to Iceland include the presence of bone pins (one of which resembles an animal headed pin from Jarlshof and which, as discussed above, has an Icelandic parallel (see Fig. 33 p. 173.), metal pins (some of which are said to be ring pins), and chains and chain holders said to be of Baltic origin (similar to those from Iceland) (see Figs. 51-52., pp. 190-191).

Iceland in relation to Norway's burial customs.

The total number of burials for Iceland amounts to 316 (Eldjárn and Friðriksson, 2000: 590), and there are said to be no cremation burials. While this may be the case depicted by the current archaeological record, one must bear in mind that many of the graves known from Iceland were excavated in previous centuries using excavation techniques that were poor by modern standards, or were exposed accidently through erosion, road building etc. Therefore, this seeming lack of cremation burials may not reflect accurately the true range of mortuary behaviours practiced during the early settlement of the island. But as stated by Einarsson:

"Iceland has no cremation graves, wealthy tombs, great mounds, erected stones, ship-formed monuments, triangular or rectangular stone settings, and so on. What characterises Icelandic graves, besides their being inhumations, is that they require a low labour cost at the funeral. This and the grave goods are a clear indication of an egalitarian society which is supported by the other artefacts found in the country." (Einarsson, 1995: 64).

While I thoroughly disagree with Einarsson's statement of Iceland as an egalitarian society, many of his observations regarding burial are exact. Icelandic burials are modest and simple in structure, and consist of both mounds and flat graves. Some stone cist graves have also been recorded (Eldjárn, and Friðriksson, 2000: 592-593). Boat graves are present in Iceland, and there are 5 in total: Kaldárhöfði, Vatnsdalur, Dalvik, and

---

20 The ratios between male and female graves used in this analysis are presented in the following chapter 6. The reader will also note that I have attempted to classify them into categories of status.
Glaumbaer (Eldjár and Friðriksson, 2000: 593). Markers on graves or mounds are also very unusual, as are the use of wooden coffins in graves of which there are said to be four in total (ibid.).

Horses in graves appear to be a particular feature to Iceland and their widespread use was noted by earlier scholarship (Müller-Wille, 1971). According to Eldjár and Friðriksson, (2000) it is said that 113 horse graves were found at 85 burial sites: 40% of male graves had them while only 27.7% of female were accompanied by horses. (Eldjár and Friðriksson, 2000: 598).

Similarly, numerous horse burials were found at Birka as well. Twenty chamber graves were said to contain horses, of these 16 were male, 3 were double graves and another one was a female burial (Gräslund, 1980: 39).

In Sjövold’s analysis there is frequent mention of similarities in the material between Arctic and Western Norway, notably in the weaponry-sets found in graves. He concluded, as did Petersen prior to him that the Iron Age of North Norway was the result of immigration from western Norway in the 4th, 5th and 6th centuries, especially from Rogaland (Sjövold, 1974: 346).

Einarsson (1995) felt that Icelandic burials most closely resembled those from Arctic Norway and the British Isles, while Eldjár felt that western Norway offered the closest parallels (Einarsson, 1995: 65). If Sjövold’s observations were correct, then both Einarsson and Eldjár were right. It was never mentioned in Einarsson’s work why northern Norway displayed the closest parallels with Icelandic burials, but if western Norway influenced developments in northern Norway during the Viking Age then this resemblance is no surprise as it is often said that Icelanders originated in western Norway!

Eldjár and Friðriksson (2000) paralleled Icelandic burials to the more modest forms of burial from Norway and added that the wealthier or “royal” Norwegian burials including large mounds, were absent in Iceland. (Eldjár,
Furthermore, they also added that Icelandic burials overall were more akin to those from Scotland than other areas of the Norse world (ibid.).

But ultimately, the general similarities between Icelandic burials and these two Norwegian regions seems reducible to the observation that they are all the result of Scandinavian peoples displaying a similar cultural behaviour with regard to burial practices. They all display two common features: the presence of grave goods placed in burials and the types/choice of grave goods. Variability in ratios of inhumation versus cremation graves, ratios of mounds versus flat graves, and in numbers of boat burials, can likely be attributed to regional differences, religious differences, or, as noted by Blindheim (1981), differences in social categories.

What distinguishes the Icelandic burials from other regions of the Norse world are the wide-spread presence of horses as grave goods, the presence of beads in all categories of burials, and more importantly a particular combination of Insular objects of jewellery (and objects) found in conjunction with more common Scandinavian types of jewellery.

We have seen above that some Insular objects were identified in Sjövold's analysis. For example, certain pins notably L215 f from Rönnvik, Bodin, similar to penannular brooches found in the Skail hoard of Scotland, the animal headed bone pin from Traelnes, Brönnøy (L42b), and certain ringed pins such as the pin from Lille-Tamsöy, Kjelvik (L726d) (Sjövold, 1974). Objects of western origin were also found at Kaupang, where the relevant jewellery consisted largely of penannular brooches and ringed pins (Blindheim, 1978: 168). Blindheim noted an increase in western objects, more so in the 10th century, which also corresponds with Iceland's settlement period, or the landnám. This might be a reflection of frequent interaction occurring between the North Atlantic colonies and Norway during this period.
Compared to the rest of mainland Scandinavia, Norway in general testifies to an important array of Insular items, as discussed by Petersen (1940), Blindheim (1978, 1982), Wamers (1983, 1998) and Bakka (1965, 1971). Blindheim (1978) stated that the largest number of Insular finds in Scandinavia were to be found in Norway, with Petersen arriving at a total of 122 items of Celtic origin in 1940 (Blindheim, 1978: 166-167). In Denmark Insular metal-work is rare, and in Sweden, with the exception of Birka, it is also scarce (ibid.). Much of the Norwegian Insular material appears to have been either ecclesiastic (e.g. book mounts transformed into other items of jewellery, etc) or items of daily use (Blindheim, 1978: 168-169; Wamers, 1983). Icelandic and North Atlantic Insular material differs from the Norwegian context by incorporating certain specific hybrid Norse fabrications such as Insular trefoil brooches, bells, strap ends, certain styles of ringed pins, as well as jet or lignite bracelets and rings. These items, mixed in with typically Scandinavian finds, produced a slightly different "North Atlantic assemblage".

Scotland

A look at the burials from Scotland suggests a closer parallel to Iceland. While the exact numbers of Scottish Viking Age burials are not yet available in a published form, it is possible to arrive at some estimates regarding the numbers. Based on my own calculations, it is possible to estimate the total number of burials between 120 and 140 graves, roughly half the amount known from Iceland.

Most of the Scottish graves are said to be inhumation burials and cremation is rare (Graham-Campbell and Batey, 1998:144) in contrast with the Norwegian situation, as noted above, and more in keeping with the Icelandic context. Cremation burials are infrequent, but have been noted in Orkney, in
the western Isles of Scotland, as well as other regions in Scotland (ibid.). Inhumation is therefore the norm (ibid.).

Boat burials as well as cist burials and slab-lined graves have also been noted in Scotland, but these features are not present in all graves (Graham-Campbell, Batey, 1998: 145). Boat burials were used for both male and female inhumations, a pattern also noted in Iceland but not mentioned with regards to the two Norwegian sites. Scotland has as many as 9 boat burials (Graham-Campbell, Batey, 1998: 150) contrasting with the 5 Icelandic ones mentioned above, suggesting that boat graves may have been a slightly more common practice in Scotland, although still infrequent within the entire mortuary corpus.

Many flat graves have been identified in Scotland, as well as probable mounds. Graham-Campbell and Batey (1998) have estimated that low mounds must have also been used (Graham-Campbell and Batey, 1998: 145). They also noted that contrary to Scandinavia, there appears to be a tendency in Scotland to use pre-existing mounds as markers (ibid.). In most cases there is no evidence (as in Iceland) that any other markers were used, with the exception of sites, such as Ballinaby, where prehistoric standing stones are reused as Viking grave post (ibid.).

Regarding grave goods, Scottish Viking Age burials include Insular objects interred in conjunction with Scandinavian objects. Graham-Campbell and Batey argued that the Insular influences are most apparent in cloak fasteners and ringed pins which replaced the former "third" brooch (Graham-Campbell and Batey, 1998:150). The grave at Lamba Ness on Sanday in Orkney included two oval brooches worn with a penannular brooch, a jet armlet, as well an amber bead (Grieg, 1940: 86-87) providing a mixture of local and Norse elements not unlike certain Icelandic burials. The Álaugarey burial is a possible comparison to Lamba Ness. It too contained two oval brooches, a
lignite arm-ring, a comb, an iron spit and a knife as well as other items (Eldjárn, and Friðriksson, 2000: 240). Such arm rings have also been found in the Castletown grave in Caithness along with a pair of oval brooches, and their presence at Viking York and Dublin is significant (Stummann Hansen, 1995: 482). In the Faroe Islands at Toftanes, a similar bracelet and two ringed pins of polyhedral head type found in conjunction with Scandinavian type objects (such as a small round brooch with Borre-style animal heads) (Stummann Hansen, 1995: 478) helps to establish a geographic and cultural bridge across the North Atlantic from Scotland to Iceland.

Ringed pins are a significant North Atlantic phenomenon. Scotland offers an abundance of ringed pins, with a total of sixty recorded by Fanning (1983: 325). Among the most significant categories, the plain-ring polyhedral head variant mentioned above, is said to be completely absent from Scandinavia (Fanning, 1983: 33). According to Fanning these pins mirror the Western Viking routes dated to the 10th century, being found in Dublin, the Isle of Man, the Hebrides and Western Isles, Orkney, Shetland, the Faroe Islands, Iceland and L'Anse aux Meadows (ibid.).

A female grave from Kneep offers further specific parallels to an Icelandic grave. It contained a pair of P51c type oval brooches, forty four coloured glass beads, an iron knife, a bone needle case, needles, an iron sickle, a ringed pin (type: balluster headed with a plain lozenge shaped ring), matching belt buckle and strap end made of bronze, and an iron rivet (Welander et al. 1987). The strap end closely resembles the strap end from Kroppur discussed above. Furthermore, the animal headed strap ends decorated with Insular motifs, from Stafn, Þorlótsstaðir (Iceland) as well as Birsay (Scotland) represent another possible hybrid Norse creation resulting from the interaction between two cultural groups.
What is missing from Iceland are overtly Celtic pieces without evidence for hybridisation, such as the “Tara-type” brooch found at Westness in Orkney (although the Sandmüli penannular brooch fragment is a recycled example), or Hiberno-Norse silver arm rings as described by Graham-Campbell and Sheehan (1995). This might be due to the few hoards found in Iceland. Also distinct to the British Isles are wealthy graves such as Ballinaby, which contained two oval brooch, a bead necklace, a silver cloak pin similar to one found at Haithabu (Cappelle, 1968, tafel 291a), five repoussé disc plates, a silver chain made of trichonopoly chain-work, as well as an array of household implements (Graham Campbell and Batey, 1998: 122-124). On average Icelandic burials are poorer than their Scottish counterparts and silver jewellery in burials is very unusual21. However, Ballinaby, by its mixture of Norse and Celtic elements, reflects the North Atlantic pattern being suggested here although in a more elaborate mortuary context.

Ireland

Before concluding this chapter, one more area, Ireland, will be examined to further contrast with the Icelandic burial customs. The analysis will be based on the research of Stephen H. Harrison (2001), as well as O’ Brian (2001).

A major concern to Irish archaeology and the analysis of Viking graves in Ireland is one that has touched other regions of the North Atlantic: an archaeological record that is difficult to interpret because it is based largely on excavations conducted in the 19th and early 20th centuries. Harrison explains that the interpretation and understanding of Viking Irish graves depends today on piecing together an amalgamation of records some of which are published and others not, that were collected by a variety of people with different interests, that were excavated at a time when the only elements of interest were the grave goods(Harrison, 2001: 62). As Harrison

---

21 See p.322 chapter 7 on quality of workmanship of Icelandic Viking period jewellery.
(2001: 66) says before the 1920's there was "a widespread lack of interest in human remains". As a result, the picture is confusing at best.

The pattern of Irish graves differs drastically from Scotland in that 80% of known Irish graves come from areas within close proximity of Dublin, rather than in more isolated regions (Harrison, 2001: 63). Of these burials 75% are said to be from Kilmainham and Islandbridge. Other burials have been recorded from other sites surrounding Dublin, and about 16 from regions in Ireland clustered strongly against the Irish Sea coast.

O'Brien (2001) managed to arrive at an estimated number of burials for both Kilmainham and Islandbridge based almost exclusively on finds and their records (O'Brien, 2001:206). She based her calculations on the assumption that one sword equated one burial – an approach that could be seen as problematic. Nonetheless, she estimated the number of burials at Kilmainham at 17, with fifteen being male and another 2, female. At Islandbridge she counted 19 burials with 17 males and an additional 2 females (O'Brien, 2001: 214). Harrison obtained different figures for both of these locations: 30 at Kilmainham, and 13 at Islandbridge (Harrison, 2001: 65).

The Norse grave in Ireland are said to be mainly inhumation burials though cremations are also found. The predominance of inhumations is attributed to the influence of a Christian milieu, according to Harrison (2001: 74) which may, perhaps be a factor that influenced the Icelandic setting as well? Burial mounds are almost non-existent in Ireland, with a definite preference for flat graves. This too was associated with Christian influences. Furthermore, it was noted that Scandinavians in Ireland buried their dead near churches (Harrison, 2001: 74) rather than close to farms, as is frequently the case in
Horses and other animals deposited in graves are found in Ireland though on a far more modest scale than Iceland.

Compared to other regions discussed in this section, and particularly Iceland, the burials from Ireland also fit the Norse Pattern of artefact assemblage observed in other Norse colonies.

"The deposition of artefacts in the grave seems to have been one of the key features of wealthy Scandinavian burial practices in this period. It might also be argued that this practice is one of the few unifying factors in their burial rites". (Harrison, 2001: 72).

The burials of Ireland, as elsewhere in the Norse world, display the now-familiar pattern in which jewellery was deposited in female graves (with oval brooches notably associated with women) and weapons were placed male graves. Of particular interest to this specific area is the apparent abundance of weapons at Kilmainham and Islandbridge in contrast to other artefact categories, as well as the large number of male graves versus female graves. O'Brien concluded that both of these cemeteries were native Irish cemeteries (one monastic, the other secular), taken over and used by the Norse settlers in the 9th century (O'Brien, 2001: 221). She concluded, based on the abundance of weapons, that these were the cemeteries of a warrior group who also engaged in farming, smithing, and trading (ibid.). The presence of female items was interpreted as reflecting a reasonably settled community, although if this had been the case one would expect to find more Norse female burials unless the Norse in this area were taking native wives who in turn were not buried with typical Norse attire and therefore may not stand out as "Norse" in the archaeological record.

The inclusion of Insular items of jewellery, recorded in both Scotland and Iceland, is not addressed in full detail in either of these sources about Ireland, although items such as ringed pins are mentioned. Of interest to the Icelandic setting is the mention of a wealthy female grave at Islandbridge where the woman was buried without oval brooches, although she had...
beads (Harrison, 2001:67). This grave may be like some Icelandic burials discussed in Chapter 6 (see p 271), such as the grave from Hafurbjarnarstaðir containing its Hiberno-Norse trefoil brooch as well as an Irish ringed pin. This might be a reflection of Irish influence in Iceland, or else a cultural mixture taking place in both areas. Further research on the Irish grave context may reveal a pattern similar to that noted in Scotland and Iceland.

Iceland's burial customs and its connection to the Viking world

In the chart below, I have attempted to offer some figures on the number of burials in various areas of the North Atlantic. While this is not a comprehensive list, it provides a general sense of Iceland's importance in the North Atlantic with regard to numbers of burials.


<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
<td>316</td>
</tr>
<tr>
<td>Scotland</td>
<td>120&gt;140</td>
</tr>
<tr>
<td>Ireland overall</td>
<td>71-76</td>
</tr>
<tr>
<td>Ireland: Kilmainham</td>
<td>17</td>
</tr>
<tr>
<td>Ireland: Islandbridge</td>
<td>19</td>
</tr>
<tr>
<td>Norway: Arctic Norway</td>
<td>174</td>
</tr>
<tr>
<td>Norway: Kaupang</td>
<td>&gt;80</td>
</tr>
<tr>
<td>Norway: Western Norway</td>
<td>1429</td>
</tr>
<tr>
<td>Norway: Eastern Norway</td>
<td>1731</td>
</tr>
<tr>
<td>Norway: Northern Norway</td>
<td>1469</td>
</tr>
</tbody>
</table>

Table 12. Estimated number of Viking period graves in the North Atlantic.

22The content and description of the burials from Western Norway are reviewed in Chapter 6 under the discussion of social status.
Iceland’s burial customs resemble the Norwegian graves of the same period in so far as they all reflect the cultural practices of people from a similar cultural background. In all Norse settlements there is a belief in the afterlife, and grave goods are placed in the graves in order to accompany the deceased to the afterlife. The selection of grave goods is, overall, similar with variations on a main “theme”. Differences in burial practices occur with regard to the treatment of the grave and the corpse: i.e. cremation versus inhumation, mounds versus flat graves, and so on.

Icelandic burial practices overall, more closely resemble Scottish counterparts than Continental Scandinavian ones, suggesting a distinct “North Atlantic assemblage” defined primarily by the inclusion of certain Insular objects of jewellery (of non-ecclesiatic origin and different from those found in Norway) in graves which are rare if not absent from the Scandinavian archaeological record. However, within this pattern, Iceland stands out potentially as a region with its own set of unique markers. These include the potential absence of cremation from the Icelandic mortuary system and the incorporation of horses in both male and female graves as common elements of the burial ritual. Yet despite these differences, the combination of artefacts interred with the Viking Age Icelandic dead correspond to general Scandinavian mortuary practices and more specifically a North Atlantic assemblage linking the North Atlantic Islands and Scandinavian settlement areas in the British Isles.

It is possible to put forth the hypothesis that the array of jewellery and burial assemblages from the North Atlantic offer a glimpse of a different cultural make-up in this region indicating that it was not exclusively a Scandinavian or Norwegian endeavour, but rather the result of a mixed cultural community expanding westward across the North Atlantic.
CHAPTER 6

Jewellery as a Socio-Cultural Symbol

The archaeological provenance and description of Icelandic jewellery in this dissertation was reviewed in Chapter 5. In this chapter, I propose to focus on the results from the database to verify what Icelandic jewellery from the Viking Age reveals in terms of information on the social dynamics at work in the earlier years of settlement of this country. As the reader will note from the section headings, jewellery appears predominantly in three areas of society: in gender relationships, in the stating and affirming of status and status behaviours, and last but not least in religious or magical expression.

However, before proceeding with this theoretical analysis of dress and adornment, I would like to address the question of the individual in the archaeological record. It has recently been argued that archaeologists have had a tendency to ignore the relationship of the individual to society and instead preferred to "treat individuals simply as micro-versions of larger social entities" (Meskell, 2000: 20). Thus, archaeologists have focused on collective structures and categories to the detriment of the individual context (ibid.). As pointed out by Dommasnes (1982), frequently, archaeological data is made up of artefacts, and in a burial context, it is the artefacts themselves that are in direct correlation with the individual:

"If graves are furnished with grave-goods, a relation is established between individuals (after death) and certain artefacts, and also of course with other elements in the burial custom" (Dommasnes, 1982: 71).

In the present section, I will be addressing the individual context. Firstly, because a global view of Icelandic burials is problematic due to the
insufficient numbers of adequately excavated graves, and secondly, because my attention has been directed towards specific artefacts and their presence in individual graves in an attempt to understand the social role of jewellery. However, in later sections I will return to considerations of the society-wide patterns seen in the Icelandic corpus.

**Part 1. Jewellery and Gender**

**Defining sex and gender in Archaeology**

Sex and gender are conflicting concepts that frequently make the study of burial data either confusing or unclear. This is particularly true when addressing graves that were excavated during the 19th century and early 20th centuries, when techniques and excavation methods were far from rigorous. Sex refers to a purely biological difference between men and women: females have pairs of XX chromosomes and males pairs of XY and differ physically (Synnott, 1997: 38; Pasternak et al. 1997: 46-47). Archaeologists dealing in human remains sex human skeletons based on these biological differences and utilise physical elements such as pelvis width and cranial dimensions to distinguish between the two. Gender refers to the social differences attributed to males and females, and societies will assign different tasks, as well as different social and cultural considerations to each sex (Pasternak et al. 1997: 47).

The distinction of sex and gender has been addressed in great detail by feminist scholarship. Nelson (1997) stated:

"Sex (or sex class as it is sometimes called) refers to the biologically male or female while gender is the "social correlate of sex class... one learns to behave accordingly to be masculine or feminine according to the norms of a particular culture..." (Nelson, 1997: 17)

She adds that gender is constructed while the latter is acquired (ibid.)
For Roberta Gilchirst the distinction is not that clear, as she argues that both these concepts of sex and gender have changed through time and are socially constructed notions (Gilchrist, 1999: 56). Her position is more "deconstructivist" than Nelson, as she sees sex, gender, as well as sexuality as "permeable categories that are created through culturally constructed models of physiology" (Gilchrist, 1999: 76). What her approach facilitates is a more open minded approach, one which is more open to the identification of multiple genders in the archaeological record as she has no former assumptions on biological sex or gender when analysing the archaeological data.

However, when looking and analysing burial data how do archaeologists evaluate the differences between male and female graves? On the basis of biological differences and sexing as stated by Pasternak et al, and Nelson? Or on the basis of grave goods which are no longer a reflection of actual biological sex but rather how the given society chooses to identify an individual, as socially male, or socially female? Damm (1991) in an analysis of gender roles in burials from the Funnel Beaker Culture and the subsequent Single Grave Culture, asks another problematic but relevant question: "..when analysing such ambiguous graves we must ask ourselves if we should give primacy to the assumed sex of the dead, or to the artefacts found with it?" (Damm, 1991:132). This questioning led the author to other important issues of gender archaeology: "are we really discussing gender roles or just associations between sex and certain artefacts?" (ibid.).

The Icelandic case is far from clear on this issue, as sexing on the basis of biological difference and sexing on the basis of gender have been carried out, until recently, in a very haphazard fashion and often not independently. In the early edition of Kuml og Haugfé (1956), Eldjárn employed Professor Jón Steffensen, a medical doctor to carry out the sexing of the skeletal material from pagan burials, when sufficient human remains were available
for it to be possible. The Icelandic grave remains, as mentioned elsewhere, are notoriously ill preserved due to the severe erosion problems the country faces, as well as poor archaeological excavations carried out in former centuries. Along with Steffansen's analysis, Eldjárn himself made several assumptions of sex on the basis of grave goods. More recently and for the re-publication of Eldjárn's book, paleopathologist Hildur Gestsdóttir carried out a more thorough sexing of the Icelandic skeletal remains from the pre-Christian burials using more modern approaches. In so far as possible, I have attempted to follow Gestsdóttir's sexing, and have labelled as "unknown" those graves for which sexing is impossible. I have also tried to avoid assuming that because a grave contained an item generally associated with female burials, such as oval brooches, that these were necessarily female. This I felt would leave me more receptive to possible cross-dressing or identifying more than one gender in the Icelandic record. Nelson (1997) suggested a similar approach by adopting Mary Whelan's (1995) idea of looking at the artefact categories before considering the sex of the deceased to avoid reconstructing contemporary gender arrangements in the past (Whelan, 1995 in Nelson, 1997: 60).

Associations of artefact types with specific gender is nonetheless what has occurred in Northern European archaeology, though not without prior research. Bo Petré pointed out that in order to determine sex/gender in a grave several factors must be accounted for: the methodical study of grave goods by subjecting them to an analysis of find combinations, and through osteological analysis, although the latter, as this author pointed out, is frequently unavailable (Petré, 1993: 149). Petré concluded, based on several different analyses of burial material, as I did myself for Iceland, that regarding Scandinavian Iron Age and Viking Age material, a common feature is apparent: weapons are generally found in male graves while jewellery is found in female graves (Petré, 1993: 149). However, I must add a distinction to this classification regarding the Icelandic material, that jewellery is also
found in male graves even though to a lesser extend. I will return to Bo Petrée’s discussion of artefact categories and gender when reviewing the archaeological data of Iceland below.

Gender theory

The study presented in this section will be one based on gender rather than biological sexing. Social interest in jewellery involves the social constructs of gender constructed by societies. Before progressing further in the study of gender and jewellery and the Icelandic data, I thought it necessary to establish certain criteria that I adhered to in my interpretation of Icelandic Viking period gender roles, as these are concerns and have been addressed over and over again by feminist scholarship and gender archaeology.

In the earlier years of feminist anthropology, certain universals were proposed regarding the roles of men and women in society. Notably, one of these was that in every culture there was thought to be a universal association of women with nature and men with the more rational and sophisticated elements of culture. By the same token women’s roles were said to be “devalued” (Gilchrist, 1999: 32). According to Gilchrist other universals were put forth, notably by Rosaldo (1974), that women were associated with the private world and men with the public domain (Rosaldo 1974 in Gilchrist, 1999: 32). According to Rosaldo women’s subordination lay in her biological role in the process of reproduction (ibid.). These universals were applied cross culturally and used to explain gendered differences in anthropological research (ibid.).

What transpires from these earlier studies of gender, is an overall sense of discontent and bitterness on the part of these scholars with regard to women’s position in society. Being associated with nature and the private realms of society was perceived as demeaning, perhaps because at the time
the view of “women in the home” was one feminists were addressing. I question this sentiment and wonder if the creation of these universals, as well as the negative feelings attached (viewing women’s roles cross-culturally as devalued and demeaned), is not a projection of contemporary concerns and an overall dissatisfaction with Western androcentric society? From feelings of anger it might be possible to suggest that these feminist anthropologists were applying a particularly negative theoretical stance to the study of male and female roles, cross-culturally, where such negative associations with private and public domains for women and men may have been non-existent?

More recently feminist theorists have modified their approach regarding these issues. Nelson (1997) points out in her book to beware of four points in gendered archaeology: essentialism, division of labour, the public/private dichotomy, and the homogenising of men and women (Nelson, 1997: 55). The four concepts are translated in the following manner: as a scholar of gender archaeology all attempts to explain women’s roles on the basis of universals about women’s biology should be abandoned; the division of labour should not be taken for granted as it may not have been present in all societies; one should not assume that women were confined to households and men to the public domain (she feels that andocentrism is present in this dichotomy); and finally one should not assume that all women of a given culture assume the same role and all men likewise (Nelson, 1997: 55).

Similar caution is advised by Gilchrist who attempts to deconstruct these former notions proposed by feminist anthropology. She states that assumptions can no longer be made regarding the universal subordination of women (Gilchrist, 1999: 36). From her perspective the public/private dichotomy is one which grew out of a post-industrial construct and is to be avoided when looking at non-industrial societies (Gilchrist, 1999: 34). Gilchrist concludes:
"A more satisfactory consideration of gender and production requires its placement within broader social frameworks, including family, households and community, with patterns of men's and women's work delineated according to gender and the lifecycle (Gilchrist, 1999: 52).

The questioning of these universals was addressed by Arwill-Nordbladh (1991) who traced the history of stereotypes of Viking women in Sweden. In her article several of these same points are addressed. Arwill-Nordbladh points out that today the female experience is valued and seen as a necessary part of the process of social evolution (Arwill-Nordbladh, 1991: 64). Furthermore the older stereotypes are being dismantled and the domestic and public dichotomy is being questioned (ibid.).

While the new theoretical feminist stance offers solid approaches to the study of gender, a negative sentiment is still apparent in some of this recent literature. By offering an alternative to the study of gender in past societies, these scholars have debunked notions such as the private/public dichotomy as well as the division of labour. But does this, therefore, imply that these aspects if prevalent and observed in the archaeological record are to be ignored? If these divisions were, in fact if present in society, are we as archaeologists, not permitted to address these notions for fear of criticism by our peers? This, to my mind, is problematic and potentially stifling to the scholarly dialogue. Furthermore, this could be seen as yet another Western cultural bias being imposed on the interpretation of past societies. It would be of more use to research, on one hand, to beware of these universals, but on the other hand, to adopt a less categorical approach whereby the archaeologist has the freedom to examine these components to gender relationships if confronted with a society where the division of labour is apparent, and the public/private dichotomy a reality.

This is the case with the Icelandic data and with the nature of Icelandic society at the time of the Viking Age. Viking society in Iceland was coloured
by male superiority and the subordination of women. Women's roles were not the same as men and did tend to revolve around the private realm of the household. These cultural attitudes are apparent in numerous sources: law codes, historical documents, the sagas, the archaeological record, kinship roles, etc. This is not to say that women's chores and roles were demeaned in the household or that women felt put down for running households. On the contrary I believe that it is possibly for a society to display some of the characteristics criticised by feminist archaeology without there being a negative association attributed to the roles of women. If negativity prevails then it is in the preconceptions of the contemporary archaeologist projecting her own cultural values to the past.

In the works of Ann-Sofie Gräslund (1995, 1999, 2001a, 2001b, 2002a, 2002b) this point is well treated. While acknowledging the overall subordinate role of women in Norse society, as well as recognising that women in Scandinavia did function in the private sphere and men in the public one as far back as neolithisation, Gräslund correctly points out that this does not mean that her role was demeaned and lacked influence (Gräslund, 1999: 91). Furthermore, what may be regarded as private now may have had a far greater public importance at the time (Gräslund, 1999: 92). If faced with a society where the private/public dichotomy is prevalent, one can therefore hardly expect to see direct political power in the hands of women, but this does not mean that she was absent from the political power structures (Gräslund, 1999: 91, 2001b: 82).

Much of Gräslund's work on gender and the roles of women in Norse society has focused on identifying in the archaeology active, strong women who may have impacted their societies in roles formerly ignored. She argued that women are not invisible in the archaeological record, furthermore the evidence is left by both men and women and each played their respective roles (Gräslund, 2001b: 81). Much of her work has focused on the rune
stones of Sweden, especially those that were raised by women or that mentioned women (1995, 1999, 2001b, 2002b). From her observations it was generally men who were mentioned in rune stones, as well as the men who erected the stones. Women did nevertheless partake in this endeavour, as she identified 39% of stones from the province of Uppland where women were mentioned, 30% in Södermanland, and 23% in Västmanland (Gräslund, 2002b: 472). This indicates that women were not silent and absent from the process. And while not the main players did have some impact on this practise.

Gräslund (1995, 2002b) also explored the role of women in the conversion to Christianity in Sweden. She noted by using the burial data as well as the evidence from rune stone inscriptions that the conversion may have been facilitated by women. From the burial data from Birka, Gräslund noted that women and children were significantly over-represented in the graves where trapezoidal coffins were used (Gräslund, 1995: 316). It is an accepted fact that trapezoidal coffins are a Christian feature in the Viking Age (ibid.). Relating to artefacts types, crosses were also noted mostly with female graves as were bronze keys, a further association with the Christian mission (Gräslund, 1995: 320). When coupled with the rune stone evidence, notably inscriptions mentioning the erecting of bridges by women (said to have been a Christian system of indulgence), Gräslund concluded that the conversion could have taken place via women first who saw this system as a more peaceful alternative to the Old Norse religion and one where their children would be spared the ordeals of infanticide (Gräslund, 1995: 325). The success of Christian missions among women is also a question she addresses in a later article in 2002. She noted their success in Macedonia as well as the Christianisation of England. The same can be said of New France in North America where the Christian missions were sent, on one had to convert the Native Americans to Christianity, but on the other hand, and also fundamental to their task, to bring in the Filles du Roi to the new colony.
The Filles du Roi consisted of 770 French women sent to New France between 1663-1673 (Huck, 2000: 12-19). They were sent to a community dominated by males which only counted 3000 settlers in 1662, and were forced to marry the French trappers who in the interim had “gone native” and had mixed with the local Native populations. This was a great concern to the Church who endeavoured through the women, to force these men back into proper Christian values. The decision to send these women on the part of the Church as well as the King of France proved a success, as in 10 years the population of Quebec rose to 10,000 (ibid.)! The Catholic church in Quebec, from the arrival of these women onwards, actively worked through women in maintaining the social order and the promotion of Christian values well into the 1960s.

Gender roles and the position of women in Norse society

**Male social superiority in the Viking Age**

Scandinavian society from the Viking period has generally been interpreted as a society that was on the whole more inclined towards male superiority and that the role women enjoyed was not a public one, but subordinate. Jesch argued that it has been perceived as irrefutably male in popular imagery due to common perceptions of Vikings as fearsome warriors and pillagers (Jesch, 1991: 1).

A review of various sources supports this hypothesis. If one turns to the burial data of Iceland, for example, one will note that the number of graves for women is greatly inferior to that of men (41.7% for male graves, 25.9% for possible males, versus 18.5% for female burials and 13.9% for possible females). The presence of female graves indicates, on one hand, that women and entire families were present in the new colony, but on the other hand, also suggests that their numbers were either far inferior to those of
men, or that they were not represented in the burial ritual to the same extent as men. If the latter is true, as seems more likely, then this is an illustration of gender attitudes of Icelandic society. Perhaps fewer women were given burials than men, and only women of a particular standing are visible in the archaeological record.

The data-sets most commonly used to establish the position of women in Norse society are the Icelandic literary and historical sources, most of which were written after the end of the Viking age but offer the closest parallels we have today of Icelandic society of the period right after the landnám, despite the fact that they were written once Christinainisation had taken place. A look at Grágas the old Icelandic lawcode, with reference to women’s roles in society do indicate that they were not fully equal public beings, compared to men, and their participation and involvement at the local assembly gatherings appears to have been almost non-existent. In fact identifying women in Grágas, overall, is remarkably difficult as they are mentioned only very rarely with discussions of men’s roles, rights and responsibilities filling its pages.

Regarding a women’s affiliation to an given assembly group Grágas states:

"If a household man takes a wife who is attached to a household, each of them stays in the assembly group where he or she was before, but at the wedding it is possible for him to choose to move her assembly attachment to the assembly to which he belongs.
If a householder takes a wife without a household her assembly attachment is then moved to his household.
If a man who is a householder dies, it is lawful for the woman he was married to, if she wishes, to choose before five neighbours, and within a fortnight from the time her husband died, to move her assembly attachment to that of her legal administrator, along with that of the people for whose words and actions she has to answer" (Grágas, translated by Dennis et al, 1980:135).

While written after the end of the Viking Age, what this passage indicates is that women’s role in society did not offer the same degree of freedom in public life as that of men. Other examples exist suggesting women’s sexual freedom was in the hands of men and men had the legal right to avenge it:
"There are six women a man has the right to kill for. One is a man's wife, two a man's daughter, three a man's mother, four is his sister, five is the foster-daughter a man has brought up, six is the foster mother who brought the man up. It is prescribed that if a man arrives to find another man forcing a women to lie with him there, a women he has the right to kill for, and the man has forced her down and lowered himself down upon her, then he has the right to kill on her account there at the place; or likewise if he finds him in the same bed as the women, so that they lie side by side, because it was his will to have wrongful intercourse with her; then a man has the right to kill on her account in both instances even if the intercourse had not taken place." (Grágas, translated by Dennis et al, 1980:135).

The use of such historical source material has been criticised by Gilchrist who argued that reliance on historic ethnographic analogies or historical and iconographic sources as a basis for the discussion of gender limit it to an androcentric and early feminist mode of reasoning (Gilchrist, 1999:52-53). In the case of the saga material and early Icelandic historical sources this type of reasoning is absurd. The 12th and 13th centuries are far closer in time to the Viking Age than we are today in the 21st century. It is my opinion that if such "androcentric" views were expressed in Grágas or in the literary texts then they probably originated somewhere, and since their androcentric biases are reflected in the male-skewed contemporary record of Viking Age mortuary ritual in Iceland, as well as in the male-dominated runestone corpus Sweden, we can reasonable infer that women's public role in life was less emphasised than that of men certainly in Iceland and quite likely across the Viking world. It is, therefore, possible to suggest that attitudes to gender may not have been all that different in 874 AD compared with those recorded in 12th and 13th century sources in Iceland.

More examples will be discussed in the following section regarding the role of men and women in society, though for the present let us briefly look at Viking Age women, and point out that different social categories of women existed, not all of which benefited from the same social advantages.
From the literary Icelandic sources, Regis Boyer (1992) tells us that as a legal wife, a woman could enjoy a considerable degree of power within the home where she was responsible for raising the children as well as running the household. Furthermore, it was upon her that fell the responsibility of passing on tradition and knowledge regarding ancestors and genealogies of both her own kin group, as well as that of her husband (Boyer, 1992: 269). Boyer (1992) also argued that it was a woman's task to see that the family honour was respected and to goad men that vengeance must be sought if the honour of the family was violated (ibid.). Frequently, women found themselves managing entire farms in the absence of their husbands who were on raids, providing them with a considerable degree of power (Hayeur-Smith, 1996: 130). While being a rather unique runic inscription, addressed by Gräslund (1997), this inscription on the Hassmyra stone reveals some of the sentiment and consideration which men could feel towards their legal wives:

"The good farmer Holmgot had the stone erected in memory of Odendis his wife. Never will there be a better housewife at Hassmyra to take care of the farm. Balle the Red cut these runes. To Sigmund, Odendis was a good sister". (Jansson, 1987: 7-8).

Many women in Scandinavia as elsewhere in the Viking world, found themselves involved in trade as merchants, working either alone in the absence of their husbands, or alongside them (Jesch, 1991:205). Female graves with balances, for example, have been taken to indicate female involvement in trade. Such an example exists for Iceland at Kornsá, which constitutes the grave of a wealthy bóni women. She was buried with the following items: an iron kettle, iron shears, a weaving sword made of walrus ivory, some iron fragments, an iron spit, an antler comb, a balance made of copper alloy, a pair of tongue shaped brooches, a bronze bell, 33 beads,
tweezers, a knife, the pin of a brooch which is now lost, as well as a dog and a horse (Eldjárns, 1956: 96-97). The presence of balances for Iceland is somewhat unique and was thought to signify a male burial when first discovered (ibid.), though osteological analysis- and hence the analysis of the individual's biological sex -indicated otherwise. This would imply that the woman from Kornsá was a more affluent free woman, who may have enjoyed a certain degree of power and respect, who was involved in trade of some sort, and likely managed the economic affairs of her household and farm.

Jesch (1991) pointed out that while the Norse were occupied with raiding and trading and predominantly male-centred activities, colonisation also occurred to Iceland and the North Atlantic. It is therefore, obvious that these free women and legal wives played a significant role in the process of colonisation (Jesch, 1991:203).

Gilchrist presented some interesting evidence regarding the role of Viking women and particularly strong Viking women in the process of colonisation (Gilchrist, 1999: 67). Warrior women are described in the writings of Saxo Grammaticus and recent tentative, yet potentially supportive archaeological evidence is said to have come to light from a burial of a proposed Viking raider from Queenhithe Harbour, London (Gilchrist, 1999: 69). The woman (whose grave was sexed) died with a blow to her head caused by a wedge-shaped instrument thought to be an axe or sword. Her body was said to be wrapped in bark, laid upon a bed of reeds. Moss had been placed over the corpse ((Ayre and Wroe-Brown forthcoming) in Gilchrist (1999: 69)). No other information is provided about this burial, notably the inclusion of grave goods as well as elements of weaponry, and according to Gilchrist the authors are reluctant to offer a final interpretation of this grave due to a lack of literary accounts (ibid.). If this woman proves to be a warrior woman, as
opposed to a woman killed by warriors, then this offers an interesting addition to the known roles played by Norse women.

It is said that free women also had the right to divorce their husbands, and among reasons given were cross dressing by men, impotence, or if the husband demonstrated friendliness towards a man who had killed his wife's brother (Simpson, 1967: 140). The social stigma associated with cross dressing and marriage is apparent in the *Laxdaela saga*, where Aud dresses up in male breeches much to the dislike of her husband and brothers:

"Thord jumped to his feet at once and went to the Law Rock, where he named witnesses and declared himself divorced from Aud, on the grounds that she wore gored breeches like masculine women do. Aud's brothers were greatly annoyed, but there the matter rested. Thord rode from the Althing with the Osvifssons. When Aud heard the news she said: "I'm glad to know I've been abandoned" (Magnússon and Pálsson, 1969:126-127).

In an earlier passage Guðrun states:

"The same penalty applies to women in a case like that as to a man who wears a neck-opening so wide that his nipples are exposed: both are grounds for divorce." (Magnússon and Pálsson, 1969:126)

Through these examples one can observe how gender and gender identity were established by respecting specific codes of dress. Male and female genders appear as firm categories that are not to be violated. This division was so marked that any transgression from it was punished.

Another interesting example of how these gender roles were respected can be observed through the contents of an Icelandic grave from the Viking period. The grave of Óndverðarnesi contained the remains of an individual who was identified by gender as male. The grave goods included the typical range of more affluent male graves goods found in Iceland as well as elsewhere in the North Atlantic: sword, spear head, shield boss, knife and a bone pin. From the original sexing conducted in 1956 for *Kuml og Haugfé*, Jón Stefansson misidentified the skeleton as that of a young 14-year-old boy due to certain abnormalities of the skeleton (Gestsdóttir, 2000: 150). Further
examination of the skeleton by Gestsdóttir revealed that the individual displayed a particular suite of abnormal features, including extreme height as well as absent epiphyseal fusion indicating that this person was suffering from hypogonadism, reduced or absent testosterone (ibid.). According to Gestsdóttir this individual had been either subjected to castration, or was suffering from Kleinfelder’s syndrome (males born with an extra X chromosome) and was aged between 18-20 years old (ibid.). During life this individual may have displayed several female characteristics: delicate bone structure, lack of pubic and facial hair, development of female breasts (ibid.). This case makes one speculate on the social implications of such an individual. How was this person regarded during life? On the basis of sex the deceased was male but could perhaps have been socially mistaken for female if he had breasts, or was effeminate. At the least one might suspect him to have been an outcast, and yet nothing in his burial points to him being considered as less male, or effeminate. His grave goods testify to what is most masculine: weaponry and the association with warfare. Therefore, in death he was certainly perceived as male and his physical sexual particularities were not emphasised. This suggests that gender roles were very structured and well-defined categories in society, and deviance in this area was not tolerated. It also presupposes that multiple genders were not something that the Icelanders saw fit to celebrate and stress and may have had no social place within Icelandic society as was the case in certain areas of the world.

The intolerance of Icelandic society to multiple genders, cross dressing, and defying the social structures of male and female gender is not only apparent in this grave and the laws regarding cross-dressing, but in other Icelandic sources as well. For example the peculiar “Nið poles” encountered in the Icelandic sagas have been interpreted as a demonstration of an intolerance of socially considered deviant sexual roles, i.e. homosexuality (Boyer, 1987: 1546; Mjöll Snaesdóttir, personal communication, 2000; Kevin P. Smith
personal communication, 2001). In Egil's saga the Nið pole consists of a mare's head planted on top of a high pole on which runes were inscribed. The head of the horse is pointed in the direction of the person one chose to curse (Boyer, 1987: 119). The term níðingr was used to designate someone with latent homosexuality and was said to be the worst insult of the early Icelanders (Boyer, 1987: 1546).

**Concubines and the unfree**

Legal wives were obliged to put up with slave women and concubines that were a part of many households. It has been argued that an important function of the slave women was precisely that of concubine, either bearing their master's children, or simply sharing their bed (Karras, 1988: 73). These women enjoyed none of the legal right described above, and it is thought that the children born of such unions could be either exposed to the elements, or in some instances as was the case in Iceland, become part of the family but with no legal rights to inheritance (Karras, 1988: 75).

Slave women were occasionally sacrificed in male burials as is recounted in Ibn Fadlan's description of a funeral among the Rus (Sass, 1995:136-137). Karras (1988) cites other possible examples in Norse graves with sacrificed women in the British Isles, at Ballateare on the Isle of Man as well as Rousay in Orkney (Karras, 1988: 73). Iceland too may have evidence of female sacrifice in a burial context. The grave of Surtsstaðir contained the remains of a middle-aged male and the addition of a female, placed in the grave at a later date. The grave had been disturbed and the only part of the skeletons to remain in situ were the feet, while the rest of the bones were in a disordered heap. The women's feet were on top of the mans' at a right angle (Eldjár, 1956:170). There were 5-10 cm of earth between his feet and hers (ibid.), indicating she had been added to the grave subsequently, and her skullcap had been sawn off (H.Gestsdottir personal communication, 1999).
One explanation is that this woman had been sacrificed after the man's death and placed in his grave. Another would be that this constitutes a secondary burial placed on top of the latter. The removal of the skullcap is nonetheless a peculiar feature. Skullcaps in context of magic are known elsewhere in the Viking period. The Ribe skull fragment from the 8th century decorated with runic inscriptions, is one such example. Most of the inscription is incomprehensible except for the word "Odin" (Graham-Campbell, 1980: 153), suggesting that it served in some sort of magical purpose.

Division of labour

Finally, it would appear that the roles of women in Norse society were quite clear cut. Women were subordinate to men and while they enjoyed some freedom did not engage in public or political activities. Women, as is the case in many agricultural societies, were responsible for the care of children, the maintenance of the household, spinning, weaving, and cooking as well as some agricultural activities. On the whole women in Norse society did not engage in warfare or hunting, and it is more than probable that they were not involved in fishing either. As argued by Grøslund (1995), "the border was the threshold of the house, with women working indoors and men out" (1995: 92). This did not mean that her role was less important or less valued to that of men and many undoubtedly contributed to their husband's successes (Grøslund, 1995: 91). Men on the other hand, may have been responsible for the primary subsistence activities as well as animal care, shepherding etc. and like women some of the agricultural work.

Hastrup (1990) conducted fieldwork on male and female perceptions in present day Iceland. She observed, through her work in two different settings; on a farm and in a fish factory, that the Icelanders today regard these areas quite differently and link them with specific gender roles. She noted that regarding Icelandic farm life, both male and female aspects
prevailed, and that women were not excluded (Hastrup, 1990:276). However, she also argued that men had an additional space in which to manoeuvre what she labelled as "outside the social" and only men engaged in activities outside the farms, such as fishing and hunting or collecting sheep in the mountains (ibid.). For this author these modern attitudes have their origins in the early settlement of Iceland, and during those times when transhumance was practised, women were forced, for short periods of time, to live away from the central farm and household, thus exposing them to the dangerous "wild space" which were not under social control (Hastrup, 1990: 276-277). It was in this wild environment that women ran the risk of being impregnated, or kidnapped by the *huldumaðr*, the hidden people (ibid.)

The body, dress, jewellery, and gender roles

**Body and adornment theory**

Let us briefly recapitulate what was discussed in the theoretical chapter of this thesis (chapter 3.):

"..we recognise that the dressed person is a *gestalt* that includes body, all direct modifications of the body itself, and all three-dimensional supplements added to it." (Eicher and Roach-Higgins, 1997:13).

The body is at the root of all forms of dress, adornment and its visual manipulation. According to Eicher and Roach-Higgins (1997), dress, from a broad, socio-cultural stance encompasses the full "assemblage of body modifications and/or supplements displayed by a person in communicating with other human beings" (Eicher & Roach-Higgins, 1997: 15). According to several scholars the body has long been considered as an appropriate surface to display socio-cultural values, or to quote Douglas (1978), providing

---

23 Women were responsible for the sheep-rearing "inside the fence", therefore protected and excluded from the world "outside" the fence of the farm and the home field (Hastrup, 1990:276).

24
“a basic theme for all symbolism” (Douglas, 1978: 163-4 in Synnott, 1997: 229; Tilley, 1999: 37, Sørensen, 2000). We have also seen that by the manipulation of the body itself humans have communicated non-verbal complex social symbols to other humans in an attempt to convey information about personal identity, personal expression, as well as social belonging. Furthermore, we have seen in Chapter 3 that behind questions of group membership lie expressions of cultural identity, and a culture will choose its symbols from an array of body symbolism (Synnott, 1997:230). Cultural identity will therefore, include a set of culturally specific “sub-identities”, identities that are dependent on the latter. They include: gender, religious identity, social status/rank, professional identity, and age. Each component of identity in turn will convey through appearance a set of rules and behaviours, some of which may be intricately tied to the body in the form of posture, gesture etc.

Gender belongs to one of the many “sub-identities” conveyed by adornment. Gender can be displayed through appearance by a choice of symbols reserved for each sex. It will inform us of the gender roles and attitudes of a given society. Thus to quote Sørensen (2000):

"...the ways in which we construct our appearance have become recognised as a central element of social and individual identity formation. It is being acknowledged that appearance is a significant element of social communication. It is recognised that through specific acts and in-and-exclusive appearances different types of social personae and categories are signalised and thus effectively involved with the construction, maintenance and negotiation of these differences. These signals are a significant aspect of social learning, which means that social roles are partly implemented and learned from dress: appearance (and the mean of appearances) play a role in how one acquires gender identity for instance." (Sørensen, 2000: 128).

Based on this theoretical approach, let us now apply it to the study of jewellery and adornment from the Icelandic Viking Age. How will these various concepts about dress, adornment and the body and decoding its

---

24 Regarding the huldumaður: “Among the most frequent dangers was meeting a huldumaður, a man of the
symbolic messages be translated into the actual analysis and interpretation of the material?

What we have to work with is the jewellery: with little or no other elements of dress (leather, textiles etc), or other body arts have been preserved to carry out the full scope of such a study. Furthermore, we are dealing with dead bodies, and thus the deciphering of social codes through death. Even though appearance is also visible in death and will be used as it was on living bodies to identify people with certain social groups, certain identities, certain kin groups, it is also possible that the identities displayed by dress, appearance and adornment in death will be specific to that social context and thus not offer an accurate rendition of the appearance of the living. To further complicate matters there is the question of formal versus daily dress and if these two elements affect the dressing of the dead. The task is therefore quite complex.

Sørensen (2000) offered one of the few methodologies published for analysing appearance in the archaeological record. Her theoretical goals and interests are similar to the ones expressed in this thesis as she recognises the importance of an archaeology of appearance for the interpretation of socially relevant questions (Sørensen, 2000: 132). Contrary to Eicher and Roach-Higgins methods of appearance analysis, who see as a primary step the grouping of types of dress by the classification of all elements that make-up dress and adornment, Sørensen’s approach tends to jump one step further and instead focuses on the combinations of different “levels” of appearance and how they interact with each other (Sørensen, 2000: 134):

“In response to such limitations, I have proposed that costume should be appreciated as being composed of single elements that are combined at different levels which may each involve distinct concerns and principles” (Sørensen, 2000: 134).

hidden people, who would often seduce and impregnate the shepherdess” (Hastrup, 1990:277).
Thus each component of appearance is taken as a symbolic sphere with its own meaning: cloth, the colour of cloth, the object (including its shapes, materials etc), the design and sculptural components of the clothing, the action and choices of creating different combinations, and the interaction of these elements on the body, and finally the archaeological context; are all seen as separate realms and it is their combinations which provide sense and social meaning to the individual’s appearance (ibid.). Relating to the analysis of objects and gender, Sørensen points out a useful attribute, the recognition that some objects can be defined in certain cultural realms as “gendered objects” (Sørensen, 2000: 136). The identification of gendered objects in the Icelandic material will figure below. Ultimately the methodology presented by Sørensen is the identification of sameness and differences expressed in the data (Sørensen, 2000: 129).

While Sørensen’s approach works best with an ideal set of archaeological data where all components of appearance are present, it is not always a feasible one. For this reason I would slightly alter this approach in the Icelandic context, based on what material is available. I would tend to adhere to Eicher and Roach-Higgins (1997), that a primary identification and classification of the material is necessary. This I have attempted to do in the subsequent section entitled “Interpretation of the data, male jewellery and dress; female jewellery and dress”, as well as with the presentation of the archaeological data itself. This enables one to establish and identify the components of dress and what material is available or known in terms of dress from the culture under observation. Following this phase and with what material is available one can then proceed with her approach and analyse the components of appearance in an attempt to identify patterns, and look for “the negotiation of sameness and difference in the data” (Sørensen, 2000:129). These patterns and combinations of elements of appearance are what provide significant social insights. In the case study on oval brooches presented below it is their wide-spread use which is interesting, their direct
interaction with the body, their shape, their appearance. However, in the
Icelandic context, textiles, and clothing architecture is absent, as are all
forms of permanent body adornment (eg. tattoos, scarification etc.) if at all
practised in this cultural setting. Much of the information regarding the
objects such as the jewellery, is also missing. Frequently the position of the
objects on the body is unavailable. One can only supplement this information
with comparative data from other sources notably other similar
archaeological data from a similar cultural tradition or from literary and
historical sources.

In the following section I will return to the graves themselves and the data
available from Iceland's Viking age. It will be followed by a presentation of
Icelandic male and female dress, as well as a case study and the
interpretation of a significant object of adornment: the oval brooch, and item
which deserves Sørensen's attribute of "gendered object".

The archaeological data: male and female graves and their
jewellery

This section will present the archaeological data for Iceland, and will look at
the burial data and the numbers which have been reached for male and
female burials, followed by my own data relating to jewellery and male and
female graves. Here the discussion is one of osteological sexing and not
gender.

In the most recent edition of Kuml og Haugfö, Eldjárón and Friðriksson (2000),
established that from all pagan burials known from Iceland of which there are
316, only 181 skeletons exist, and of those only 108 could be sexed. This
resulted in 45 male and another 28 which could be male (the sexing here is
uncertain based on biological sexing); and 20 definite females with an additional 15 that are potentially female (Eldjárn and Friðriksson, 2000: 595).

<table>
<thead>
<tr>
<th>Total</th>
<th>Male</th>
<th>Male?</th>
<th>Female</th>
<th>Female?</th>
</tr>
</thead>
<tbody>
<tr>
<td>316 Graves</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>181 Skeletons</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>108 sexed skeletons</td>
<td>45 (41.7%)</td>
<td>28 (25.9%)</td>
<td>20 (18.5%)</td>
<td>15 (13.9%)</td>
</tr>
</tbody>
</table>

Table 13: Distribution of male/female graves from Iceland

Based on the analysis of jewellery in my database, the total number of items of jewellery recorded from graves amounts to 162 separate objects. Five male graves contained at least one item of jewellery [see Table 14], while 40 osteologically sexed male graves did not. In contrast, 12 of the 20 graves with osteologically sexed females contained jewellery, while only 8 did not. While some jewellery was found in both male and female graves, the predominant association of jewellery with women's graves is significant at any reasonable of statistical significance, when this distribution is analysed using a simple chi-square test ($X^2 = 17.35$, df = 1, p < 0.001).

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Row totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graves with</td>
<td>5</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>jewellery</td>
<td>[11.8]</td>
<td>[5.2]</td>
<td></td>
</tr>
<tr>
<td>Graves without</td>
<td>40</td>
<td>8</td>
<td>48</td>
</tr>
<tr>
<td>jewellery</td>
<td>[33.2]</td>
<td>[14.8]</td>
<td></td>
</tr>
<tr>
<td>Column totals</td>
<td>45</td>
<td>20</td>
<td>65</td>
</tr>
</tbody>
</table>

Table 14: Contingency table of male and female Icelandic Viking Age graves with and without items of jewellery. Bracketed figures indicate
expected values for each cell, based on the row and column totals. The Chi-square value for this distribution ($X^2 = 17.135$), at one degree of freedom, indicates that jewellery was more commonly included as a funerary offering in women's graves than in men's, at any reasonable level of statistical confidence ($p < 0.001$).

Additionally, within this data set 38 individual items of jewellery could be attributed to female graves and 24 to men's graves. An additional 100 pieces of jewellery came from "indeterminate graves" for which no definite sexing was available (see Table 15).

Table 15: Distribution of jewellery in graves according to sex

The apparent association of more jewellery in women's graves is statistically significant ($X^2 = 11.91, df = 1, p < 0.001$), suggesting not only that women were more likely to receive jewellery as funerary accompaniments, but also that they were likely to receive more items of jewellery per grave than were men (see Table 16).
<table>
<thead>
<tr>
<th></th>
<th>Male graves</th>
<th>Female graves</th>
<th>Row totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of graves</strong></td>
<td>45</td>
<td>20</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>[35.3]</td>
<td>[29.7]</td>
<td></td>
</tr>
<tr>
<td><strong>Number of items of jewellery</strong></td>
<td>24</td>
<td>38</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>[33.7]</td>
<td>[28.3]</td>
<td></td>
</tr>
<tr>
<td><strong>Column totals</strong></td>
<td>69</td>
<td>58</td>
<td>127</td>
</tr>
</tbody>
</table>

Table 16: Contingency table comparing the number of male and female Icelandic Viking Age graves with the number of items of jewellery associated with each sex in those graves. Bracketed figures indicate expected values for each cell, based on the row and column totals. The Chi-square value for this distribution ($X^2 = 11.91$), at one degree of freedom, indicates that women's graves contain more jewellery, on average, than men's graves, at any reasonable level of statistical confidence ($p < 0.001$).

What these results indicate is that females were given significantly more jewellery in death than males. Some scholars may find this normal behaviour, yet completely neglect the fact that wearing jewellery along with other forms of adornment is sensitive to cultural variation, and in some societies it is the men who make greater use of jewellery than women. In the Norse context, as was discussed above, Petré recognised that the common feature for Norway's early and late Iron Age, as well as the rest of Scandinavian graves, was that weapons were associated with male graves and jewellery with females (Petré, 1993: 149). A similar pattern is noted for Iceland – not only were women more often given elements of jewellery as items of adornment in death, but also the kinds of adornment associated with the sexes differed in characteristic ways, as will be discussed in greater detail below.
Gender and status distinctions.

While presenting the archaeological data and the ratios of male to female graves as well as male to female graves with jewellery, I felt it would be of use to look at another dimension of adornment: status and status distinction and gender. The question of social status in Icelandic graves will be discussed later on in this chapter, and therefore the chart below should be consulted for subsequent paragraphs.

Bergliot Solberg (1985) conducted an analysis of gender and status on Merovingian and Viking Age burials from northern, western, and eastern Norway. She attempted to rank social status on the basis of grave goods. From a total of 3796 graves with weapons (identified as male graves) she established 3 categories of status in male burials, with group 3 as the highest status burial and group 1 as the lowest. The division was as follows:

Group 1 contained one offensive weapon (axe, spear or sword); group 2, two offensive weapons (axe/sword, spear/sword and axe/spear) and 3, three weapons (Solberg, 1985: 246). Solberg identified that single weapon burials constituted the largest group with 61% in western Norway, 71% and 74% in central and eastern Norway respectively (ibid.). She also identified the sword as being the weapon of highest social status. Group 3 graves were the highest social status burials but were also the least representative of categories with 15% in western Norway and 10% in the other regions (ibid.)

From 833 female-gendered graves, Solberg's division of status was as follows:

Group 1: 5 beads or more, and/or the presence of textile implements
Group 2: at least one conical brooch, or 1 oval brooch, beads, textile or agricultural implements, miscellaneous items like keys.
Group 3: a conical and/or oval brooch as well as beads, keys, agricultural and textile implements (Solberg, 1985: 247-248). For female graves, Group 3 represented the richest graves and encompassed only 16% of all female graves in western Norway and 13% in eastern Norway (ibid.). Group 2 represented the most common category with 40% in western Norway, 60% in central Norway and 54% in eastern Norway (Solberg, 1985: 247).

In order to establish a system of status identification for Iceland I have taken Solberg's criteria of status distinction (Icelandic burials as we have seen in Chapter 5, do follow a general Scandinavian pattern of pagan burial, particularly with regards to the inclusion of grave goods), and adapted it to the Icelandic context. I have therefore, adapted her tripartite division of Group 1,2,3 with group 3 burials as being higher status burials when contrasted with Group 1 burials:

**Male Icelandic graves:**

**Group 3:**
- 3 weapons: sword, spear, axe
- 2 weapons: sword, spear
- 1 weapon: sword
- shield boss
- tools agricultural, carpentry etc 1 or more
- jewellery: 1> items of jewellery (round brooch, ringed pin, belt buckle, strap end, pendant)
- beads 1>
- animals (1 or more), and harness equipment
- miscellaneous (gaming pieces, ice spurs, weights, fish weights, knife etc)

**Group 2:**
- 2 weapons: spear/axe
- shield boss
- tools
- miscellaneous item
- 1 item of jewellery
- beads 1>
- 1 animal
Group 1:
-1 weapon: axe
  or shield boss
- beads, or 1> or 1 item of jewellery
-1 animal or none

Female Icelandic graves:

Group 3:
-2 oval /or tongue shaped brooches
-1 central brooch, trefoil or round brooch
-additional items of jewellery
-beads: 1>
-agricultural, cooking or weaving implements, all or any combination
-miscellaneous items (keys, weight scales, shears, combs etc)
-animals (1 or more) and harness equipment

Group 2:
-1 oval brooch, or other brooch
-other item of jewellery
-beads: 1>
-textile implements or other (1 only)
-miscellaneous items (same as above)
-1 animal and harness

Group 1:
-1> beads or simple item of jewellery
-additional implement such as a knife, comb etc
-1 animal or none

I must stress here that Solberg’s analysis was based solely on gender identification and not on biological sex determination of skeletons as is the case I have presented using Icelandic data (see p. 241). The following table is also based on osteological sexing, as I have tried to stick to Eldjárn and Friðriksson’s (2000) data as much as possible and respect their identification when looking at graves with jewellery. At the same time I have also noted the gender associations with certain artefacts. This enables one to compare the results from the two approaches and verify the degree of correlation between artefact categories for males and females and osteological sex determination. As was noted by Petré, the situation in Iceland is similar to
the rest of the Viking world: oval brooches and jewellery do appear mostly in female graves and weaponry in male burials.

The Icelandic burials with jewellery\(^\text{25}\) can be divided as follows:

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Uncertain</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Male?</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Female?</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Double grave*</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Unknown</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>18</td>
<td>44</td>
</tr>
<tr>
<td>Totals</td>
<td>24</td>
<td>16</td>
<td>16</td>
<td>18</td>
<td>74</td>
</tr>
</tbody>
</table>

Table 17: Recorded number of graves with jewellery.

Group 1 (lower social status) > Group 3 highest
*In my sample of graves with jewellery certain graves were double graves, 2 of which were male/female graves and two of which were male/male graves frequently with the inclusion of a young male child in the latter category.

As with Norway, the Group 1 burials are more frequent for both sexes, (whether those are well sexed or uncertain); group 2 are slightly less common; and group 3 burials are the least common. Furthermore, double graves appear to be associated with higher status. This could be explained in two manners: 1. Double graves such as the grave from Kaldarhöði, Vatnsdalur (both boat burials) have more artefacts than other graves 2. One of the individuals in the double grave was of high status such as the grave of Hafurbjarnarstaðir where a boy is entered with an adult male, and Surtstaðir where a woman is entered with a man.

\(^{25}\) Please note that the graves presented in this table are only graves containing jewellery and which were recorded as part of this research project. I was not able to conduct a similar division for all of Icelandic burials as I did not possess information on the entire burial record.
Interpretation of the data and discussion

For the sake of clarity in discussing female and male dress in Icelandic society I will commence here with a presentation of the types of jewellery found in Icelandic graves over the course of my research:

<table>
<thead>
<tr>
<th>Types of Male jewellery</th>
<th>Types of female jewellery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beads</td>
<td>Beads</td>
</tr>
<tr>
<td>Penannular brooches</td>
<td>Oval brooches</td>
</tr>
<tr>
<td>Round brooches (Uncertain)</td>
<td>Tongue shaped brooches</td>
</tr>
<tr>
<td>Strap ends</td>
<td>Strap ends</td>
</tr>
<tr>
<td>Buckles</td>
<td>Buckles</td>
</tr>
<tr>
<td>Buttons</td>
<td>Buttons</td>
</tr>
<tr>
<td>Ringed pins</td>
<td>Ringed pins</td>
</tr>
<tr>
<td>Rings</td>
<td>Rings</td>
</tr>
<tr>
<td>Copper alloy pendants</td>
<td>Bracelets</td>
</tr>
<tr>
<td>Weaponry</td>
<td>Trefoil brooches</td>
</tr>
<tr>
<td>Bone pins</td>
<td>Bells</td>
</tr>
</tbody>
</table>

Table 18: Types of jewellery encountered according to each gender.

Beads, strap ends, buckles, buttons, ringed pins and rings were interred with both male and females. Penannular brooches, copper alloy pendants, bone pins, and weaponry were found only with male graves, while bells, bracelets trefoil brooches, tongues shaped brooches, and oval brooches were found only with women. Round brooches are somewhat unclear in the Icelandic context and will be discussed below.
Male jewellery and the description of male dress

If men were engaged in subsistence related activities demanding greater physical effort and movement it would be essential that the jewellery, dress and adornment not hinder movement, while keeping one's clothes fastened. Large cumbersome items of jewellery would make fishing, hunting or sheep herding and riding somewhat unpractical. At the same time it may have been important for men to signal visual messages of group, ethnic, status or religious affiliation in these subsistence related activities and at political gatherings. Therefore, if large elaborate and cumbersome elements of jewellery were impractical as essential items of male adornment other elements of male dress may have served these functions equally well, and with clearer purpose.

Male dress in the Viking period and in early Iceland is said to have consisted of breeches or pantaloons worn with a tunic which fell from mid-thigh to bellow the knees, held by a belt from which was suspended a knife, comb and purse (Graham-Campbell, 1980: 113). A cape was frequently worn with a brooch or clasp on the right shoulder so that the right arm was free to carry a sword (ibid.). The sword, an item of jewellery and adornment, with elaborate sword chapes added to the scabbard were an item of high social status according to Solberg (1985: 246). Furthermore they appear to have been associated with masculinity and could therefore be considered as gendered objects according to Sørensen (2000: 132)

The sagas confirm this depiction of male dress, despite the fact that they were written two centuries after the end of the Viking era.
From the Laxdaela saga Chapter 63 there is mention of cloaks, tunics and jewellery:
"The boy said: "there was one man there sitting on a painted saddles, wearing a blue cloak. He was big and manly, balding at the front with prominent teeth." (Magnússon and Pálsson, 1969:203).

"Next to him there was a man sitting on a gilded saddle. He was wearing a scarlet tunic, and had a gold bracelet on his arm and a gold embroidered band tied round his head." (ibid.)

"The boy went on, "Then there was a man sitting on an enamelled saddle. He was wearing a lime-green tunic, and had a large gold ring on his finger." (Magnússon and Pálsson, 1969:204)

"Next to him sat a young man wearing a blue tunic and black breeches with his tunic tucked inside his belt." (ibid.)

Male jewellery in the sagas generally makes reference to arm rings, and finger rings as well as weaponry rather than other forms of jewellery. In the Poetic Edda arm rings are mentioned frequently. In Oddrun's lament,
Verse 20:
"Soon they offered red-gold rings,  
And no small compensation to my brother;  
He offered for me fifteen farms,  
The burden of Grani, if he wanted it" (Larrington, 1996: 207)

Verse 26:
"Red-gold rings we offered to the warriors  
That they should not tell Atli-  
But they excitedly told Atli,  
Eagerly they hurried home" (Larrington, 1996: 208)

While many of the descriptions of rings refer to gold rather than silver, what the archaeology of Iceland has revealed is that no arm rings were found in male burials. One explanation for this divergence may be that rings, whether arm rings or finger rings, were most immediately viewed as elements of wealth (made of silver) rather than adornment and were subsequently used, consumed, or buried in hoards rather than placed in the grave. Four such hoards, including pieces of silver arm rings have been discovered in Iceland to date (Eldjár and Friðriksson, 2000). Another possibility is that the sagas
are inaccurate on this point and are referring to a literary image or genre, rather than accurately portraying men of the Viking period wearing arm rings and offering them as gifts.26

From the jewellery recorded in this corpus from male graves the majority comprising various pins, clasps, penannular brooches served their purpose of being useful clothing fasteners. While being both decorative and functional, they also expressed personal choice, signalled affiliation to a given community by their style and design, and may also have expressed social status and rank by the materials they were made of and by their overall appearance.

The round brooch from Þorlótsstadir (Fig. 20) is a P128 type of round brooch quite distinctly Scandinavian and rather small and discreet. It was found in a disturbed grave field area and was recovered near the location of a possible male (46+)27 who was buried with a horse, a dog, a cauldron, and a strap end (Eldjárn and Friðriksson, 2000: 569). While not very elaborate, this brooch if associated with the male grave does identify the wearer as somehow affiliated with Norse culture, while his strap end may point more towards the British Isles28.

The most common and most widespread form of adornment found in men's graves is weaponry. By weaponry I include swords and sword chapes, spears, axes, arrow-heads and shield bosses, though in the context of this analysis I have only focused on those that displayed clearly intentional aesthetic embellishments such as swords decorated with elaborate hilts and chapes or spears decorated with silver wire inlay etc. According to Eldjárn

---

26 See chapter 7, p.315 under “materials”.
27 Although it has been suggested that they are part of typical female attire in the Swedish Viking Age (Anne-Sofie Gräslund, personal communication, 2002)
28 See chapter 5, p.160 (Fig. 20) for view of the jewellery under discussion.
and Friðriksson (2000) weapons have been found in graves with unequal numbers of swords, spears, axes and other types (See table below):

<table>
<thead>
<tr>
<th>Swords</th>
<th>Sword chapes</th>
<th>Spears</th>
<th>Axes</th>
<th>Arrow-heads</th>
<th>Shield-bosses</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>1</td>
<td>56</td>
<td>24</td>
<td>2</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 19: Numbers of graves with specific weapon types (Eldjárn and Friðriksson, 2000: 600-601).

No weapons were found in female burials indicating that weaponry was a key visual component to male gender and would have been a part of the understood male costume. Furthermore, weapons, by their very nature, would have immediately conveyed messages about masculinity, and the ability of men to defend and protect their kin group, to uphold their individual rights, and to participate in public action.

I argue that elements of weaponry with decorative embellishments served a social function in addition to their practical purposes. These decorative features may have contributed to conveying messages of ethnic affiliation, alliances, or external contacts as well as denoting the social status of the wearer among other men—a point which will be considered later on in this chapter.

Less practical items of jewellery, found less frequently in male funerary contexts: copper alloy pendants, and beads are also found in women’s graves and may have catered to an altogether different set of social criteria. Pendants, depending on their representation, may have acted as amulets, or simply as decorative elements of adornment, which by their style and design denote social affiliation. It is an interesting coincidence that beads are found in both male and female burials fairly uniformly, and in burials with no other
grave goods as well as those with abundant grave goods. In early Iceland beads may have been considered as something separate from other forms of adornment as an element of jewellery that almost everyone had. Whether this was because they were endowed with magico-religious significance, or whether they catered to a very basic need for adornment is not clear and will be discussed below.

**Female jewellery and adornment**

It is possible to suggest that female jewellery and adornment is more revealing of gender roles and attitudes than is male adornment and jewellery in the Viking era. For one, Icelandic female jewellery is more elaborate than male jewellery appears to be. There is more diversity in adornment for females, and more emphasis on decorative items of jewellery.

While women like men, were given beads, belt fasteners, buttons, and a range of pins, what was uniquely associated with women were a series of brooches (oval, trefoil, and tongues shaped brooches) that were worn singly or more often in sets. Large gilded and placed prominently on the body, these items would have been clearly visible at short-to-medium distances, easily differentiating those able to wear them from those could not. At closer distances, the styles, iconography, quality of workmanship, and repair histories of the brooches probably said a lot about the status, wealth or family histories of the women who wore them. Beyond these aspects, however, the defining feature of these engendered objects was that they were designed to hold together other items of clothing and, by so doing, to conceal the body beneath in layer of cloth now long decayed but at the time defining of a women’s image in society.

From the archaeological data including images obtained elsewhere that Iceland, we know that Viking Age women wore long garments, the basic
outfit consisting of a long chemise with long sleeves fastened at the neck with a brooch (Hägg, 1974: 108). A pair of oval brooches were worn at shoulder level attached to the straps of a sleeveless apron or dress, which was worn on top of the long dress underneath (ibid.). A string of beads or a pendant was frequently hung between the brooches along with other useful implements: knives, scissors and sometimes keys (Jesch, 1991: 17). A wrap or a shawl could be been worn over this outfit; and from evidence recovered at Haithabu, well to do women often wore an ankle length coat over their dress (Jesch, 1991: 18). Most fabrics used were made of wool or linen and occasionally silk. Coats could be lined with fur, and embroidered ribbons or sewn on cords would frequently be added to the garments for decorative effect around the edges (Jesch, 1991: 17).

Plate 2: Possible depiction of female dress from Sweden (Graham-Campbell, 1989: 114).
It is thought that Viking women wore a head-dress of a sort. Fjellström (1985) using data from the Osberg ship burial, argued that women wore an article of clothing on their heads which had the appearance of a kerchief knotted under the chin; or even a diadem or headband, such as are found in Swedish and Finnish graves (Fjellström, 1985: 120). She refers to this garment as the hlað (ibid.). According to this same author, in the Rigsbula: women are said to wear "sveigr var a hofdi smokkr var a bringa" (Fjellström, 1985: 121). "Sveigr" (Sveigur in modern Icelandic) is described as a kind of head adornment, like a piece of rolled cloth fastened around the head while the "smokkr" are said to be worn on the breasts (Eddadigte, 1961:74 in Fjellström, 1985,121). The text reads:

"The man was whittling wood for a cross-beam. His beard was trimmed, his hair above his brows, his shirt close-fitting, there was a chest on the floor.

On it sat a woman, spinning with a distaff, Stretching out the thread, preparing for weaving; A head-dress was on her head, a smock on her body, A kerchief round her neck, brooches at her shoulders, Grand father and grand mother keeping house." (Rigsþula verses 15-16 : Larrington, 1996:248).

Fjellström concluded that the women’s head-dress served to identify married from unmarried women (Fjellström, 1985: 122), and it is tempting to think that the oval brooches may have served the same purpose.

Head-dresses are mentioned in Laxdaela saga in the following passages:

"Kjartan gave Hrefna the head-dress as a wedding gift, and this gift caused quite a stir, for no one there was so cultured or so wealthy that he had ever seen or owned such a treasure. According to well-informed people, there were eight ounces of gold woven into the head-dress."(Magnússon, and Pálsson, 1969: 162-163)

"Next day Guðrun told Hrefna to put on the head-dress and let people see the most valuable treasure that had ever come to Iceland." (Magnússon and Pálsson, 1969: 164).
It is clear from the last description that the head-dress was intended as a form of jewellery, at the same level of other items of jewellery. In this light, it is worth noting that women's costumes, throughout later periods of Icelandic history as elsewhere in Scandinavia were defined in large part by cloth-formed headdresses, often very elaborate and said to identify women's age rank, and marital status. The ubiquity of such folk costume elements throughout Scandinavia suggests common origins in traditions of dress going back to the Viking Age or older.

What has been described here are the clothes of free-born women, or bondi women. The sagas offer very scanty descriptions of the garments of slaves. Again from the Laxdaela Saga:

"The one sitting right at the edge of the tent caught his eye; she was shabbily dressed, but Hoskuld thought her beautiful, from what he could see". (Magnússon, and Pálsson, 1969: 64).

Jesch (1991) described the clothing of poorer women as a simple and ample ankle-length, long sleeve dress made of a rough woollen fabric (Jesch, 1991: 18). This information was obtained from the underwater excavations which took place at Haithabu in 1979-1980, and recovered discarded clothing that had been torn up into rags to be used on ships (Jesch, 1991: 17).

But how does this information on costume reflect the way the female body was perceived and treated in early Icelandic society? Female garments and adornment appear, in my opinion, to have been more concealing than male dress and adornment and the allowance for body movement in males was greater than with females. This may have had to do with the type of labour activities engaged by both men and women, however, it may also have said something about perceptions of gender.

If we return briefly to Douglas's (1996) statement concerning ways that social control is expressed symbolically on the social body, how much movement is
social acceptable and permitted by garments will express society's views on
modesty, sexuality, and gender roles among other things. Thus if a society
exerts significant control over men and women, this will be expressed in how
much movement is allowed and dress and adornment can be one of the key
vehicles for such control.

As Keali'iiaomomoku (1979) argued:

"Clothing can function to constrict movements, as the Japanese example
shows, or to extend body movements, as in the Korean court dance
example. Clothing can reveal body movement styles, as exemplified by the
Arabian belly-dancer costume, or determine movement styles that change
the shapes of the natural body as exemplified by the ballet dancer's blocked
shoes" (Keali'iiaomomoku, 1979: 80).

Thus, the way clothing and adornment are constructed socially will determine
how people move, how they are able to express themselves through
movement, and ultimately what their culture's views are regarding the body,
and gender. Keali'iiaomomoku concluded that ultimately you wear your own
culture (ibid.) because culture uses the body as one of its means for
expression.

Norse and Icelandic women's costume, as revealed by archaeology,
contemporary iconography and saga descriptions does not offer a high
degree of freedom of movement, nor is it to my mind overtly revealing or
visually sexual. There is a tendency towards concealment of the body and
one might conclude from the cultural attitudes being vehicled by adornment,
that women in the Viking Age were controlled and restricted, not surprising if
women were perceived as secondary and socially subordinate to men. Yet a
closer look at the jewellery indicates that if there was a certain control and
concealment, sexual implications were not completely absent.
Figure 65: Identical pair of oval brooches from Bjórsárdalur (m. 96a/b) (a: 11.3cm x 6.2cm; b: 11.3cm x 6.2 cm) the most finely crafted oval brooches from Iceland. (Illustrations: M. Hayeur Smith).

Oval brooches (Fig. 65) are undoubtedly the most significant visual and social item of female adornment from the Viking period (Dommasnes, 1982: 258).
73; Owen & Dalland, 1999: 147), and have been given considerable attention in this dissertation. They are widespread in the burials of Viking Age Scandinavia, including Iceland. They are so standardised that they have been used as gender identifiers in Viking Age burials (Dommasnes, 1982:73), but went out of fashion during the mid-tenth and early-eleventh centuries (Jansson,1985:228; Owen & Dalland, 1999: 147). As Rigsþula implies, oval brooches were worn in pairs near the shoulders or just above the breasts. Archaeological recovery of pairs of oval brooches on the chests of women in Viking Age graves confirms this pattern and their placement. Pairs of oval brooches also clearly resemble a stylised and accentuated pair of breasts. As symbols emphasising external female sexual characteristics associated only with women, they are distinctly engendered objects. Their placement directly on the breasts or slightly above them was reinforced by their decoration with multiple bosses (frequently 9) that make allusion to nipples. They could be direct reflections of female sexuality, or better still they may have served the purpose of expressing notions of femininity, fertility and lactation and/or associations with female divinities, by the hyper-emphasis of stylised female sexual traits. This interpretation is further supported by images of motherhood portrayed in Icelandic mythology. Linke (1992) argued for a duality of female representations in Icelandic myths. She argued that the sexually erotic women's power was centred on the vagina, while the maternal image of women was centred upon her breasts as they symbolise nourishment and the feeding of offspring (Linke, 1992: 272)

In a study of gender roles in Minoan dress, Lee (2000), argued along the same lines:

"The ambiguity of both concealment and exposure as a means of emphasising the external sexual characteristics does not indicate that social constructions of gender were ill defined, but rather the opposite; the categories of masculine and feminine were strict social constructions that

---

29 Wobst (1977) discussed the visibility of artefacts as a factor to consider when deciphering social messages (Wobst, 1977: 328). With regards to dress and adornment the higher up on the body the artefact is placed the earlier it is seen and the more rapidly the social message is transmitted (Wobst, 1977:332).
were perpetuated on an everyday, individual level through dress. It is also legitimate to assume that emphasis of the penis and breasts necessarily connoted specifically sexual meaning in Minoan culture as they do in our own. Although these organs function biologically in procreation and lactation, many cultures ascribed them other meanings as well, such as virility and nurturing. But while specific meanings attached to these aspects of male and female dress elude us, the structure of the Minoan dress system suggest that male and female were primary social categories that were sustained through dress " (Lee, 2000: 119).

This may have also been the case in Norse society. I believe that the seeming conflicting ideals of concealing female clothing on one hand, along with oval brooches expressing notions of female fertility on the other hand, were ultimately expressing clear views that male and female gender were important and very fundamental distinct social categories, not only in Iceland but across the Viking world. This does not imply that femaleness was devalued. On the contrary this could have been a means to enhance their femaleness and the importance of there being two gender categories, particularly as we have seen above that cross-gendered behaviour did not appear to be incorporated into the social norms of early Iceland.

Jewellery and gender in the Icelandic Viking Age context

Social and cultural ideals regarding the roles of men and women in Viking Age Iceland were defined through dress and adornment and negotiated by the choice of jewellery worn. Women’s jewellery tended to be more decorative than that of men, and this decorative dimension of jewellery is in itself another reflection of social attitudes towards gender.

If we return to the division of labour in early Icelandic society, we note that men were more involved in rigorous outdoor subsistence activities and in the public domain, while women were subordinate socially to men and were involved in areas relating to the household. What better way for a man to express his possession, status, and ownership over a woman’s body than
through jewellery and by covering his wife in elaborate adornment? This phenomenon is not unique to the North but is widespread throughout the world where men display their wealth and status on the bodies of their women. For example, among the Tuareg of North Africa a man’s prestige and wealth is measured by the quality and quantity of silver jewellery that he, and more specifically, his wife wear (Mickelsen, 1976: 16). Therefore, to have one’s wife adorned with oval brooches, trefoil brooches, bead necklaces as well as the array of other possible types of jewellery will express who this man was on a social level as well as on the level of cultural affiliation.

The constructs of gender expressed through dress and adornment are highly complex with ramifications and symbolism affecting more than one level. Therefore, the choice of jewellery adopted will reflect the overall gender constructs of a given society, that is, the way females and males are perceived by their own gender and by the opposite gender. But it is not a simple situation of women being oppressed by men, or having their bodies taken over by the opposite sex and used to express their own personal agendas. Women themselves actively participate in the process of gender expression. Women in any given social structure are perpetuating the same social attitudes as men, through adornment and the treatment of the body. Furthermore, as they were largely responsible for the making of clothing, this in turn made them active participants. Lee (2000) demonstrated this aspect for Minoan society, where women were responsible for textile production and the making of clothing, and therefore at a basic level played a role in the production of gender construction in Minoan society (Lee, 2000: 119).

What has been described here is geared towards the Icelandic data. The literary sources used are from Iceland, as are the Eddas, and the archaeological examples come from the Icelandic setting. Yet what has been demonstrated with oval brooches is applicable to the cultural setting of the North Atlantic, at large, as well as the Viking world. Norse pagan burials
from Scotland to the Faroe Islands reveal the same cultural tendencies towards gender and adornment, as burials in these regions are quite similar in orientation, organisation, and material culture as those from Iceland. Let us now return to the question of status which was briefly touched upon in the presentation of data. I will now attempt to address this dimension in greater depth and consider how status may have been vehicled in early Icelandic society during the settlement and early Commonwealth periods.
Part 2. Jewellery and Status

Defining status in mortuary remains

The analysis of status differentiation through burial remains has been a primary concern of funerary archaeology for the past thirty years (Parker Pearson, 1999: 94). In *The Archaeology of Death and Burial* Parker Pearson discussed the stratification of societies and offered, to facilitate distinction, the following concepts: societies that were either vertically differentiated or horizontally differentiated. Vertically stratified societies include societies, such as Icelandic society of the *landnám*, as described in Chapter 1, "in which there is differential individual access to wealth and status" and offered cases such as societies with a king/commoner/slave scale of social differentiation as examples of such societies (Parker Pearson, 1999: 74). In horizontally differentiated societies people are divided into social groups of relatively equivalent ranks, such as a moiety or sodality (Parker Pearson, 1999: 74). Furthermore, based the works of Bryan Turner, Parker Pearson offered the following definition of status:

"..status as based on a specific style of life, maintained and expressed through shared living and eating arrangements, privileged access to power, wealth, and scarce resources, and the maintenance of the intra-group marriage alliances and other customary conventions " (Parker Pearson, 1999: 83).

One might add to the definition of status and its associated behaviour: styles of dress and adornment, as well as the rituals of the body as defined by Synnott (1997) including gesture, posture, etc. Ultimately status is also tied up with questions of identity whether cultural or social, as shared lifestyle, language and group defining behaviours (cuisines, fashion etc.) are all components of cultural identity. Parker Pearson added to his definition that
status frequently involved the struggle over scarce resources (Parker Pearson, 1999: 83), a notion which fits particularly well with the discussion of jewellery as a symbol of status. Jewellery is generally a rare resource and more so in the social environment of a young colony. Because of its scarcity it may even come to adopt meanings which were unknown in the homeland.

The first example I will present here offers an analysis of status through burial remains from Norway. In Iceland, the burial assemblage is similar and I have therefore attempted to apply the same approach to Iceland. I have used as a symbolic emblem of status the oval brooch, though what is said can also be applied to others items of Scandinavian jewellery in Iceland as well as elements of weaponry in Icelandic male graves.

Oval brooches

In the burial material from Scandinavia, as well as Iceland, oval brooches appear to be associated with women from a particular stratum of society. According to Gräslund (1980), oval brooches are found predominantly in female inhumation burials at Birka, and less frequently in cremation burials (Gräslund, 1980: 81). Furthermore, as was pointed out by Gräslund, Arbman estimated that 50% of Birka burials contained this type of brooch while the graves from Adelsö had none (ibid.). Gräslund attributed this situation to different burial customs in Adelsö and offered the hypothesis that the grave goods in the inhumation burials of Birka may reflect more the customs of central Uppland from which the more affluent population of Birka may have originated (Gräslund, 1980: 82).

As was presented above regarding status identification in Norwegian and Icelandic graves (see p. 245-246), Dommasnes (1982) similarly carried out a
study for the region of Sogn, in western Norway. She attempted to rank female roles and status in her sample of 264 graves, of which 213 were suitable for detailed analyses. Although there was no mention of the frequency of oval brooches in her description (as they were incorporated under the heading of "jewellery"), she did notice that jewellery ranked as a constant artefact category with higher values in women's burials (Dommasnes, 1982: 77-78).

Solberg (1985) as noted earlier, found that oval brooches were most commonly found among her highest ranked burials (group 3), which were the richest but least numerous graves. This implies that oval brooches were significant markers of a status category that was not open to all women. But what defined access to these emblems of female rank?

The distribution of oval brooches in mainland Scandinavia indicates that they were given to women who had reached a particular stage in life without necessarily belonging to a very wealthy élite. They were definitely not slaves but should perhaps be seen as the quintessential Viking housewife, married, with children, running her own household and farm in the absence of her husband, wife of a bondi or yeoman farmer undoubtedly with slaves under her care. One might even suggest that her oval brooches, similar to the wedding ring today, might have displayed her married status.

The Icelandic context

For the present discussion I refer the reader back to p.240 and the section dedicated to the presentation of the data. We have seen that in the Icelandic burials males outnumber females. This is similar to what was found in western Norway where only one fourth of burials were thought to be female rituals, eating drinking, dancing etc. (Synnott, 1997: 65).
It was argued that the sample was not representative of the population, as the male/female ratio should be constant 1/1 (ibid.). In Birka based on the analysis of grave goods it is thought there were more female graves (Gräslund, 1980: 82).

From Iceland there are 44 oval brooches (considering each brooch as a separate unit and including in the sample existing but well described lost brooches) with 38 being attributed to a possible burial context. An additional 6 are stray finds for which no archaeological context is known. Of the 38 oval brooches associated with burials, 18 brooches are from reliable archaeological sources while another 20 are not. While these numbers are few, the burials in question compare relatively closely to their Scandinavian counterparts, notably, Norway. This is supported by Friðriksson (1996), and Smith (1995), who concurred that Icelandic burials in general correspond closely to those found in Norway (Smith, 1995: 339; Friðriksson, 1996: 909).

If one were to sex the graves on the basis of grave goods (and particularly the inclusion of oval brooches in graves, while dismissing the osteological analysis as did Solberg for Norway), one could argue that possible female graves with oval brooches amounts to 23, and those without, 16. Under this approach the total number of female graves with jewellery could be estimated at 39.

---

31 One might argue from the ratio of male/female burials that possibly only the top echelons of females in society received burials while the remaining may have been disposed of in another manner. Under this light even the “poorest” of female graves with grave goods should be considered high status burials in comparison with the rest of the population.

32 These values for females have been compiled on the basis of grave good type rather than on the basis of biological sexing.
Table 20: Distribution of female graves with and without oval brooches.

<table>
<thead>
<tr>
<th>Total number of female graves based on gender identification</th>
<th>Possible female graves with oval brooches</th>
<th>Possible female graves without oval brooches</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>23</td>
<td>16</td>
</tr>
</tbody>
</table>

Status ranking and jewellery in Icelandic graves

With this relatively small sample, little difference is noted in the three categories of burials, and it is not possible to draw conclusions on the level of wealth in female burials. Dommasnes (1982) argued that any pagan Viking burial with grave goods represents only a small fraction of the population, while the majority of people were buried with nothing. From this perspective, then all burials with some sort of funerary display reflect a relatively high status (Dommasnes, 1982:73). Despite the few examples, it is possible to observe that Icelandic graves do duplicate the Scandinavian situation of pagan burial practise, indicating that the settlers were reproducing a Scandinavian model known to them from their homeland.

Icelandic Group 3 burials offer the same range of grave goods observed in Norway: a pair of oval brooches, the presence of a third brooch, beads, as well as an array of implements ranging from cooking utensils to agricultural equipment or weaving implements. Group 3 corresponds to what might be suggested as the wealthiest category of burial. Group 2 also displayed similarities with Norway, either one oval brooch or an other item of jewellery, beads, and one category of implement as enumerated above. Group 2 represents an in-between group. Without being very poor these graves
possibly represented the graves of the female members of household's linked to ordinary free-farmers or ðændur. Group 1, also in keeping with Solberg's finds in Norway, represents the least affluent group of burials.

**Particularities in the Icelandic female burials**

Specific behaviours unique to Iceland are apparent with regard to the presence or absence of animals as grave offerings. In female burials horses are found in all three categories, indicating that the horse held no particular significance to any specific stratum of society in early Iceland. In contrast in the Birka Chamber graves, horses are associated specifically with wealth and status and they are clearly found together with equestrian equipment and weapons that symbolise military activity (Ringstedt, 1997: 70). The observations here, concerning female burials, are particular to Iceland and have been discussed by Ringstedt (1997), as well as Müller-Wille (1971). Both authors remarked on the widespread presence of horses in Icelandic burials, stating that over half of the cemeteries in Iceland which have grave goods also contained horses (Müller-Wille, 1971:120-121,123,162,233 in Ringstedt,1997: 70).

Other unique features are apparent in Icelandic graves without oval brooches, and they offer an interesting comparison to those with such brooches. Three examples are presented here taken (one each) from groups 1,2,3:

**Group 3 graves without oval brooches:**
A grave from Kornsá, in Austur-Hunavatnsýsla, is a higher status burial without the presence of oval brooches and on the basis of its overall assemblage could be classified as a Group 3 burial of considerable wealth\(^{33}\).
Two tongue shaped brooches with Jelling style decoration from this grave (similar to P137) (Plate 3, Fig. 66) appear to have been worn in a similar fashion to oval brooches but would have been visually distinct and rare in Iceland. Eldjárn discussed the provenance of these tongue shaped brooches and mentioned that during Jan Petersen's classification only 8 were known from Norway, while several were said to have been found in Sweden (Eldjárn, 1956:313-314). These tongue shaped brooches have been described as being decorated with either foliate ornament, Borre style, or Jelling style ornament. Eldjárn knew of one example from Norway, and one from Birka that were similar to the Icelandic examples (ibid.). Whatever their place of origin, these brooches appear to have been uncommon in Scandinavia.

Plate 3: Tongue shaped brooches from Kornsá with beads suspended between the brooches (Photo: M. Hayeur Smith).

33 For the description of the contents of this grave see Eldjárn, 1956: 96-97.
Figure 66: Close up of on the Kornsá tongue shaped brooches (6.4cm x 3.5 cm) (Illustration: M. Hayeur Smith).

A bell found in this burial has parallels in Iceland and the British Isles, where Batey (1988) identified similar bells from Caithness and England (Batey, 1988: 215).

The Kornsá burial, therefore, offers evidence of unusual and foreign jewellery in a high status female grave from an early Icelandic social setting. This could reflect the internment of someone from a mixed cultural background, or be the result of trade and interaction in the Viking world. In the absence of the standard oval brooch, the deceased was granted an equally valuable item of jewellery that would serve to state her social standing in death, as well as that of her surviving kin group. In Iceland, being far rarer, tongue shaped brooches may even have been perceived as a superior alternative to the oval brooch, therefore symbolising a woman of the highest social stratum.

---

*See illustration of the bell on p.171 (Fig.31).*
Group 2 graves without oval brooches.

In a grave from Hafurbjarnarstaðir, Gullbringusýsla, classified as a group 2 type burial, the deceased was an adult female placed in a flexed position and was buried with the following items: a ringed pin with the ring missing, a trefoil brooch worn on her chest, a knife, a comb, two pebbles of unusual shape, three clam shells, and some iron fragments (Eldjárn, 1956:74-75). A stone slab had been placed on the upper part of her body and a whale bone plaque on the lower half (ibid.).

Neither items of jewellery from Hafurbjarnarstaðir are typically Scandinavian in origin. The ringed pin is an Irish type, and is of the polyhedral head variant, said to be the largest group of ringed pins from the Dublin sites (Fanning, 1994:25). The trefoil brooch has parallels from elsewhere in Iceland and from Jarlshof in Shetland, and it has been suggested that they were produced in the British Isles under Scandinavian influence (Paterson, 1997:649). Both items of jewellery are, therefore, not typically Scandinavian and one might speculate as to the cultural origins of this person. She may have been among those of mixed Norse/Celtic descent, perhaps even Irish or from the northern or western Isles of Scotland.

Group 1 graves without oval brooches:

The site of Kroppur, Eyjafjarðarsýsla, revealed two burials. The female burial contained a bronze ringed pin of Scandinavian type (Petersen C)(Fig.13), as well as what has been described as a folded bronze plate (Fig.2), but which has since been identified as a strap end similar to one found in a Viking burial at Kneep in the outer Hebrides (C. Paterson, personal communication, 2000). This type possibly originated in the British Isles. No other grave goods were found in this burial and once again, this assemblage of grave

---

35 For illustrations of the jewellery see p.175 (Fig.34), p.179 (Fig.40).
36 See chapter 5. P.174 on ringed pins.
37 See chapter 5 p. 182 and for illustration (Fig. 44).
goods suggests either trade and interaction with the British isles or a person of mixed background.

Insular or foreign jewellery in Norway is not uncommon and is frequently the result of contact with the British Isles (Graham-Campbell, 1984:38). In the Birka chamber graves, Nils Ringstedt (1997), reported that high status burials for women included rare items of jewellery, such as crucifixes, reliquary pendants, precious stones, silver charms, jet bracelets, because they suggest a long distance connection and the economic ability to acquire rare products (Ringstedt, 1997: 74). Some of these items were Insular in origin. While this does not seem to be the case in Iceland, non-Scandinavian and Insular items do appear frequently there in combination with Scandinavian type material culture. This combination also seems, based on the review of burial customs from other North Atlantic regions (see p 209 chapter 5) , to be something linking Iceland and Norse settlement areas in the British Isles. As was mentioned in Chapter 5 it is the type of Insular material mixed in which makes it unique compared to the mainland Scandinavian pattern. The inclusion of this Insular jewellery is in my opinion, the result of the incorporation of non-Scandinavian or mixed settlers from the British Isles who contributed to the colonising population of this island and who are frequently mentioned in the medieval Icelandic historical documents.

Having reviewed the archaeological data from Iceland relating to status, burials, grave goods and the presence or absence of oval brooches in female graves, I would now like to turn my attention and discuss the social implications of these results. I feel it is relevant to place this archaeological data into a broader social framework in order to understand the role and place of jewellery as a status emblem. As my emphasis in this analysis has been on the presence or absence of oval brooches in graves, I will continue to focus on this type of jewellery. I believe that the oval brooch, as well as
other items of Scandinavian jewellery, may have become symbols of status and cultural identity in the social reality of early Iceland.

Jewellery as a symbol of personal, and cultural identity

The heirloom, status, and issues of cultural identity

As already discussed, jewellery, clothing and adornment act symbolically on an individual's sense of belonging. Through these visual clues humans have been able to convey subtle messages about their social and cultural identity. The information may be of a particularly personal nature, decipherable only by members of a closed group, or they may be on a cultural level conveying information about group identity to other groups at large. According to some anthropologists, jewellery and adornment, by stressing unique physical features, are expressions of individuality, and a means by which human societies can display information regarding group affiliation, values and standards of the group. (Cannon, 1998:24; Polhemus & Procter, 1978:11)\(^38\). They constitute part of the vast tool kit used in marking issues of personal and cultural identity.

Despite the seeming similarity between all forms of adornment, they differ in their degrees of importance. A look at past scholarship reveals that jewellery has generally been given more weight than clothing. I believe this to be the result of its permanence. Jewellery survives time, clothing does not\(^39\). Furthermore, jewellery is often made of materials which themselves are loaded with symbolic meanings of "preciousness". Regardless of time and of cultural context, it is jewellery that we offer to mark society's rites of passage.

---

\(^38\) See Chapter 3 p.93-96 on the theoretical aspects pertaining to this thesis.

\(^39\) In the study of jewellery and adornment it would be of interest to include an analysis of textiles. However, this is where the question of permanence becomes a concern, in Iceland few textiles of this
and the important moments of life. Jewellery is given at marriage, at birth, at death; jewellery is inherited.

Jewellery is a constant reminder of events not only to those who experienced them, but to their kin as well. All of us can relate to having inherited a piece of one's great-grand mother's jewellery and felt pride and a connection with one's past. Jewellery as heirloom, therefore, becomes a connecting agent with one's ancestral group. It establishes an emotional rapport with the past in providing the individual with a sense of belonging, a sense of group identity. Barley (1997) described the heirloom in the following manner:

"Their link with the dead may turn them into inalienable heirlooms or relics, kept by the living as witness to a bond between themselves and the departed." (Barley, 1997: 85).

Female graves with oval brooches, as well as other items of jewellery accompanying them, or the presence of elaborately decorated sword hilts and chapes in male burials, convey this sense of belonging to a community or group. They indicate that many people continued to perform Scandinavian pagan burial practises in this new country: 1) Because it was familiar and they reproduced what they knew and 2) It may also have become something special and unique to their cultural heritage. This feeling of "uniqueness" in cultural display is prevalent in the heirloom phenomenon and is intimately connected with identity. For example, there is evidence elsewhere in the North Atlantic that the dates of burials do not necessarily coincide with the dates of the jewellery incorporated in them. The Scar burial in Orkney is a case in point. In the Scar burial, the equal armed brooch (also known as a Troms type brooch) was of considerable antiquity when placed in the ground. It was dated between the 8th and the latter half of the 9th century (Owen and Dalland, 1999: 69), while the age of the burial itself was estimated at:

"...the most likely date for the grave is sometime between About AD 895 AD and 1030 and more probably after 960; while the most likely date for the period have been preserved. Undoubtedly the colour and decorations on the textiles would add to the social messages being discussed in this chapter.
grave on the basis of the artefactual assemblage is somewhat earlier, from the second half of the ninth or first few decades of the tenth century" (Owen and Dalland, 1999: 165).

This suggests that the brooch was an heirloom passed down to the deceased (ibid.).

In the Icelandic situation, although direct dates of the skeletons are not yet available (J. Arneborg, personal communication, 2000), it is possible that certain graves with oval brooches are later than the jewellery itself. The oval brooches from Skogar i Flókadal may be such a case (Fig.67). They are Berdal type brooches with Oseberg style ornament dated to the 9th century (Eldjarn, 1956: 79). Although we know little of their context, Kristján Eldjárn considered them as belonging to a burial, and it is possible that this burial was later than the brooches it contained.

Figure 67: Skogar i Flókadal brooches (no. 5030a/b) (a: 10.8cm x 5.5 cm; b: 9.2 cm x 5.6 cm) (Illustrations: M. Hayeur Smith).

As mentioned above the heirloom connects with one's decent group, and establishes a sense of cultural belonging, for the dead and the living. In Iceland, I believe that the oval brooch, as well as other Scandinavian artefacts and the burial mode itself became symbols of cultural identity connecting the group with their origins. In this context, the oval brooch may
no longer have signified simply a woman's status probably as it did in Scandinavia, but it may have come to symbolise far more: where her kin group was from and to which community she belonged.

This is particularly striking with the oval brooches from the graves of Daðastaðir, Norður-Pingeýarsýsla, and Ketiðstaðir, Norður-Múlasýsla. Both women's graves have elaborate funerary display and have been classified as higher status burials. Intuitively one would tend to equate high-quality jewellery with higher status, yet both graves produced oval brooches of relatively poor quality and poor rendering. The grave from Daðastaðir is the more elaborate burial and contained the following grave goods: two oval brooches, a trefoil brooch, a bracelet, ringed pin, bead necklace, belt clasp, and agricultural implements, textile implements, as well as a comb, a piece of flint, and a dog (Eldjárn and Friðriksson, 2000: 212-213).

The oval brooches are not an identical pair. While both are P51 type brooches, one is a P51d type and the other a P51b (Fg. 68). The P51d is of poorer quality than its counterpart. This lower quality of workmanship is apparent in the rendering of the brooch itself, for example, the lack of crispness and clarity of the designs on the various panels of the oval brooch. Fuglesang (1987) enumerated a number of criteria to establish good or poor workmanship:

"Quality in this connection is taken exclusively as a criterion of craft in the rendering of ornament, eg.: Are the planes of modelling smooth and uniform or uneven and serried? Are the walls of relief smooth or jagged? Is an incised line evenly curved or angular? Are incised lines of even width and depth or are they uneven? Such criteria of technical ability reflect the amount of training a craftsman had, in other words whether he produced ornament regularly or only intermittently." (Fuglesang, 1987: 222).

In the case of the Daðastaðir brooches it was likely not the quality that was important but their presence in the grave.

---

40 Illustrations for the Daðastaðir burial can be seen in chapter 5, p.152 (Fig.9), p.155 (Fig.14).
It is likely that this sense of "Scandinavianess" becomes all the more important far from the homeland, and identity in this new setting was bound to be altered and adapted to the new social environment. In effect, identity is always something in constant flux and will be affected by circumstances,
such as foreign domicility due to colonisation, war, etc (Gold & Paine, 1984:2; Amory, 1997:16). Gold and Paine (1984) have argued that particular emotions and attitudes may arise when referring to the "homeland" or "mother country" among people living in a new place (Gold & Paine, 1984: 1). According to these authors, notions and images of the mother country may evoke a variety of responses:

"On different occasions, mother country may arouse any one or several emotions across a wide range: nostalgia or bitterness, insecurity or messianism, nationalism or international brotherhood. It is as likely to provoke feelings of elitism as of inferiority. Only exceptionally we think, is it a feeling of indifference." (Gold & Paine, 1984: 2).

The sense of cultural belonging and ideas of the mother country change with the circumstances of settlement. What people practised in Iceland, as funeral behaviour may no longer have carried the same social meaning it originally had in Norway. The symbols may have been modified to suit the current reality, and certain objects placed in graves may have taken on a new symbolic meaning, to become in their own right "status" objects worn to promote one's place in the emerging social hierarchy. After all, pagan burial was by its very nature a symbolic act (Owen & Dalland, 1999: 143).

Social climate of early Iceland and questions of identity

We have seen in Chapter 1 that the uniqueness of early Icelandic society lay in the fact that Scandinavians arrived in a land which was essentially empty. The new society was thus forced into creating itself, not an easy task in a community consisting of a mixed group of people from both Scandinavia and the British Isles. The cultural element from the British Isles is mentioned in the Landnámabók as well as other written sources41. According to Jones the settlement of Iceland cannot be disassociated from this region, as a decade or so prior to its discovery exploratory voyages to Iceland were carried out

---

41 See Chapter 1, p.34.
from the British Isles (Jones, 1986: 41). Landnámabók mentions several settlers from Ireland, the Hebrides, and Scotland whose names are Celtic. In addition, there are many examples given of Norse settlers whose spouses were non-Norse- or of mixed decent. Finally, we know from the written sources that most slaves brought to Iceland in the early period of the settlement were from Ireland and the British Isles (Karras, 1988: 49). From the Landnámabók there is frequent mention of Irish slaves:

"He plundered all over Ireland and took a great deal of loot, including ten slaves called Dufthak, Geirraud, Skjaldbjorn, Halldor, Dradrit- the rest of them aren't mentioned by name." (Pálsson and Edwards, 1972:19).

"Hjorleif drifted west along the coast. He ran short of drinking water, and what the Irish slaves did was to knead together flour and butter saying it was good for thirst." (Pálsson and Edwards, 1972: 20)

"There was a man called Avang, of Irish descent, the first settler at Botn." (Pálsson and Edwards, 1972: 25).

Even though slavery was said to be officially abolished with the advent of Christianity in 1000 AD (Byock, 1988: 123; Karras, 1988: 142; Hastrup 1990: 65), Karras (1988) places the actual disappearance of slavery in Iceland roughly in the mid 12th century based on evidence from Grágas42 (Karras, 1988: 135). Hastrup (1990) stated that the Landnámabók documents the abolition of slavery earlier during the landnám period (Hastrup, 1990: 62). What is clear from the existence of slavery and its rapid or slow decline is that from a social perspective a new social strata of freedmen emerged and were integrated into a formerly stratified social system (Byock, 1988: 123; Hastrup, 1990: 62;). Some freedmen became tenant farmers, some became landowners (Byock, 1988: 123), while others may have joined the ranks of free landless workers (Karras, 1988: 144). In such a social dynamic there was bound to have been a degree of cultural demarcation at work. Cultural identity may have been affected by such a social environment when

42 Grágas, the old Icelandic law code.
more than one social group interacted with each other, as was argued by Amory (1997):

"When two groups, whether affiliated hitherto or not, are forced into sharing limited material resources, ethnicity may assume a preponderant role in dividing and defining each of them." (Amory, 1997: 16).

To further complicate issues in Iceland, the society itself was undergoing rapid social change. We know that the first settlers claimed large portions of land in more advantageous agricultural regions resulting in large farms (Byock, 1988: 55) and that by the first half of the 10th century humans were settled in all habitable regions of the country (Vesteinsson, 1998: 4). During a later phase of settlement, newcomers were obliged to obtain land from these landowners, which gave rise to tenancy as well as small farms settling around the main farmstead units on land less favourable for agriculture. (Smith, 1995: 321; Vesteinsson, 1998: 2). For some authors, such as Byock and Hastrup, the large farms of the early settlement had become smaller (Byock, 1988: 56-57; Hastrup, 1990:63). Furthermore, from the parcelling up of land it is said that it became increasingly difficult to distinguish the leading families among the settlers, as all landholders benefited from similar rights as freemen (Byock, 1988: 56-57). Smith and Vesteinsson argued otherwise, stating that less homogenisation took place and that Iceland's élite maintained its status well into the medieval period (Smith,1995:321; Vesteinsson, 1998:19).

The process of colonisation, land claiming and land negotiating did not occur suddenly and was undoubtedly gradual, resulting in some possible form of competition and the need to distinguish oneself from others. This probably took place either culturally between Norse and Celtic peoples that in turn may have been transformed and expressed by competition between social strata, élite versus entrepreneurial free farmers versus ambitious freedmen. Undoubtedly the élite tried to maintain its élite status and without a doubt jewellery and material culture in general was used to negotiate social
hierarchy. The pagan burial practice and grave-goods, though dated prior to the introduction of Christianity, may have been one of a multitude of elements used in this socio-cultural distinction. They may have contributed to the necessity for some settlers to define themselves as "the dominant cultural group". Cultural identity is just one of many hypotheses worth considering when addressing "Scandinavian" material culture and funerary display in the early settlement of Iceland.

Tied in with the discussion of status display and gender is the question of religion. They are all metaphors and components of peoples' experienced identities. The last category of social jewellery to be addressed in this chapter will be jewellery of magico-religious origin. I will attempt in the following section to verify if the jewellery from Iceland offers information pertaining to this realm of society.
Part 3: Jewellery and the Magico-religious dimension of society in early Iceland

Religions, in general, do not view the world as a homogenous environment (Eliade, 1965: 25). There is an opposition in spatial understanding between what is characterised as the "sacred space", the "true space", or "cosmos"; and all the rest, which is "chaotic". In traditional societies chaos and cosmos are at opposing poles, and reflect a deeper dichotomy between the known and unknown world, or the sacred and the profane (Eliade, 1965: 32).

While possibly reflecting a Judeo-Christian world-view, Eliade (1965) felt these sentiments were at the basis of all religious organisation, mythology, worldview, beliefs and practises. Malinowski, on the other hand, while also acknowledging that human perception saw the world around as populated with unknown forces, considered the question of religious belief from another angle. Malinowski saw that man's concern with propagation, nutrition, and the fear of death to be at the base of all religious expression (Malinowski, 1948: 41-53).

---

43 Eliade's argued, that with the help of religion, the surrounding world could become sanctified and transformed into "cosmos" (Eliade, 1965: 32-33). Therefore, unknown territory, because of its uncertainty was chaos, and through its occupation, the symbolic transformation into cosmos would take place (Eliade, 1965: 33). These notions are interesting when considering the colonisation and early settlement of Iceland. The newly occupied space/land becomes a replica of the space occupied by the gods and, therefore, divine participation is involved. Furthermore, by settling a given territory, this place becomes the centre of the world for the people who inhabit it (ibid.). While Iceland was not organised per se according to pagan Norse religious belief and pantheon, certain of these elements expressed by Eliade are inherent in the their world view and pagan religious beliefs.

44 Both Malinowski and Eliade may seem slightly outdated by today's standards, but their approach to religious thought and discussion of magic fits the Norse context being discussed here.
The creation myth and the organisation of the world

Norse pagan belief describing the creation of the world can be noted in the Voluspa, and was later recorded by Snorri Sturluson in the 13th century in the Edda. As expressed above, the pagan Germanic world began with chaos. To the south, a void known as Muspellsheim was described as destruction and a place of heat and fire; while to the north Niflheim was the realm of mist covered in ice and fog (Hveberg, 1976:10; Dillman, 1991:33). Ginnungagap the region that lay between these two extremes saw the birth of the world. Ginnungagap is an area described as mild in relation to the hot Muspellsheim and cold Nifelheim. When the two met in Ginnungagap the heat melted the ice and the droplets gave birth to the frost giant Ymir (Dillman, 1991:34).

Linke (1992) conducted an analysis of this creation myth and saw links with cultural constructs of gender in early Icelandic society. The elements of fire, ice and water in the creation myth are interpreted as a cultural recognition of the role of men and women in Icelandic society (Linke, 1992: 268). According to Linke the fire is male while the female is ice, and it through their union ("fiery semen" coming into contact with "icy fluids" of the watery womb) that the elements of primal creation take place (ibid.). Thus it is from this context that Ymir the primal being comes to life.

From Ymir descended the line of frost giants, sworn enemies of the gods. From these same drops, a cow by the name of Audhumla was born. She fed Ymir from the four streams of milk from her udders. She in turn nourished herself from licking the salt off of the frozen rocks, and as she licked a man began to emerge. This was Buri the grandfather of Odin, head of the Aesir, and head of the Norse pantheon. He ruled over the sky and the earth (Dillman, 1991: 35-36). With time, the gods succeeded in killing the frost giant and with his body created the earth. With his skull they made the sky and dwarfs supported it at the four cardinal points (ibid.)
Eliade makes reference to the Germanic myth of creation, with the death of the primary being; the cosmos takes shape (Eliade, 1965:54). With Ymir's eyebrows a fortification was built to protect the gods from the threat of the giants. This area was called Midgard, or the middle earth, where men resided and where the gods had their own dwelling place, Asgard. It is interesting to point out, that both men and gods resided in the same general area, alluding to Eliade's concept of the "centre of the world" (Eliade, 1965:38). In Norse cosmology there were a total of nine worlds. Nine is a number that reoccurs frequently in the mythology and was associated with magic. It was during nine nights that Odin hung himself from a tree in order to acquire the secret knowledge of runes and his magical power; and when Draupnir, Odin's gold ring was fabricated by the dwarfs, they created nine other rings from it every ninth night (Ellis Davidson, 1965:4).

At the centre of the world there was an Ash-tree, Yggdrasil. It was said that its branches stretched out over the whole world and reaching up to the heavens. One of its roots resided with the Aesir, the other with giants in Jotunheim, and the third root was in Nifleheim (Dillman, 1991: 46). For Eliade the symbolism contained behind the world tree expresses notions of fertility, wealth, rebirth and life, as well its continuous renewal (Eliade, 1965: 127-128):

"Le mystère de l'inepuisable apparition de la Vie est solidaire du renouvellement rythmique du Cosmos. Pour cette raison le Cosmos a été imaginé sous la forme d'un arbre géant : le monde d'être du Cosmos, et en premier lieu sa capacité de se régénérer sans fin, est exprimé symboliquement par la vie de l'arbre. (ibid.)

In the world tree one encounters ideals of life and death as well as the rhythm of life, easily followed and understood in nature and through its vegetation (ibid.).
The Norse pantheon

Norse pagan religion was a polytheistic religion expressed by a dichotomy between the two families of deities, the Vanir and the Aesir. The Vanir expressed all things relating to fertility, eroticism as well as material well being (Flowers, 1986: 133). The Aesir on the other hand, concerned themselves with matters relating to war, law, magic and the more rational dimensions of humanity (ibid.).

The head of the Norse pantheon was Odin an Aesir. He was said to be the god of magic, poetry, wisdom, war, as well as one of the gods of the dead (Davidson, 1967:130). Norse pagan religion has been classified as a shamanistic religion and Odin’s shamanistic attributes are incontestable. He is frequently depicted entering into a trance allowing his “double” to escape his body and travel in the shape of an animal. (Lecouteux, 1991:195). His shamanistic abilities are also portrayed in his ability to travel to the land of the dead (Renaud-Krantz, 1976: 206). Odin has as companion the eight legged horse Sleipnir, as well as his two wolves and two crows (Huginn and Muginn). There are other shamanistic associations, such as his patronage over the Beserkir, ferocious warriors who had the ability to enter into trance prior to battle, thus rendering them invincible to their enemies. By the same token the term Beserkir, stems from the words ber and serkr, signifying “bear shirt” implying that the warriors were appropriating to themselves the temperament of the bear, and ultimately of Odin (Renaud-Krantz, 1976: 193)

Other significant deities include Thor, the god of thunder and protector of the gods; Frey and Freya both Vanir and twins, symbolising love and fertility. It was to Freya that went a percentage of warriors fallen in battle, while the majority went to Valhalla, Odin’s hall of the slain. At Valhalla, warriors fought all-day and feasted all night preparing for the final battle of Rangnarok, and end of the world. Not to be forgotten, Loki, the trickster god of the pantheon.
I will return to the specificities of certain of these gods later on in this section, as they figure as prominent themes used in magic, and religious practise, and intricately tied with jewellery.

Norse religious practise and the distinction between religion and magic

Norse religious practise is not unlike many religions of the world and offers a distinction between an official public version of religion along with its practise and rituals on one hand, and the belief in magic and control of supernatural powers on the other. This dichotomy has been addressed over and over by numerous scholars in the anthropological literature. Indeed these are two separate, yet related and overlapping areas of spiritual belief. For Malinowski (1948) the distinction between these two spheres of spiritual expression is defined by the fact that with magic, the main goal is always clear: magic is inevitably a means to an end (Malinowski, 1948:70). The same cannot be said for religion which, in turn is far more abstract and intangible:

"It includes animism, animatism, totemism, and fetishism, but it is not any one of them exclusively. The isms definition of religion in its origins must be given up, for religion does not cling to any one object or class of objects, though incidentally it can touch and hallow all." (Malinowski, 1948: 36).

Therefore, according to Malinowski, through the magical act the intent is clear and the outcome specific, while with religion there is no purpose directed towards a subsequent outcome (Malinowski, 1948: 38). Furthermore, religion "sets its stamp on the culturally valuable attitudes and enforces it by its public enactment", which magic does not. (Malinowski, 1948: 65). Yet in both there is the power of belief. Magic can be defined as follows:

"...a body of purely practical acts performed as a means to an end. (Malinowski, 1948: 70)."
Magic is a means to an end and it seeks to control and manipulate that which is unknown and might be feared, either through beneficial or harmful intent. Its practical aspects are far more limited and include specific techniques, such as the spell, rite and the appropriate condition of the performer (Malinowski, 1948: 88). The distinction of magic and religion fits well into the concept of the sacred and the profane, as stipulated by Mircea Eliade and explained above. Religion by its very nature transforms what may have been formerly unknown and feared into the sacred through its appropriation. It structures society's view of the world, offering a pantheon of spirits and gods, guardian spirits, benevolent powers of the totem a tribal all father, a vision of future life, and ultimately a body of supernatural faith (Malinowski, 1948: 88).

I feel that the distinction between religion and magic is an important one to make with reference to the Icelandic material and Viking religious expression in general. What has been described above in terms of myth of creation, the pantheon, as well as Mircea Eliade's distinction of chaos and cosmos the sacred or the profane spheres touches upon the more official dimensions of spiritual belief and religion. Yet what we are observing in burial is far more the magical dimension of Norse paganism in the form of amulets and talismans. The ritual involved in burial practise, the daily religious behaviour and belief can only come to us through literary and historical sources and are not usually apparent in the archaeological record. This observation was confirmed by Härke (1997) who noted that ritual occurs before, during, and after cremation or burial and frequently much of this ritual we cannot see through the archaeological data (Härke, 1997: 22). Nor do we have any information pertaining to the role of religious dress and adornment in Norse society, and how if at all, priests were distinguished from the other members of society through adornment.
Religious display and behaviour

Religious practice in its daily expression had been analysed by Regis Boyer (1994) through his numerous writings on religious attitudes, death etc in early Iceland based on evidence from the saga literature. Boyer, (1994) argued that the head of the household was responsible for the private cult within the home, as religion was intricately tied in with family and its ancestors (Boyer, 1994: 67). One did not exist alone but as an intricate member of an extended family where the dead and the living played an active role (ibid.). Ancestor worships was a significant dimension to this religion, and is apparent in the treatment of the dead. In an analysis of ghosts and other supernatural beings in early Icelandic literature, Mathey-Nowenstein (1990) argued that the dead are frequently buried close to the living so as to maintain an active presence in their lives (Mathey-Nowenstein, 1990:2). This pattern is supported by the archaeology of early Iceland as grave fields and burials are almost always found outside the home-fields (Vesteinsson, 2000: 45). Furthermore, it was necessary to adequately treat dead relatives by providing them with the necessary equipment in their burials so as not to offend them, and insure their peaceful passage to the other world, thus avoiding any displeasure and rambunctious behaviour they might inflict on their living kin (Mathey-Nowenstein, 1990:20). She argues:

"Le mort veillera sur le clan et acordera sa protection à ceux qui maintiendront l'ordre et la paix qui firent et doivent continuer de faire l'honneur de la famille." (ibid.).

The official carrying out of religious rituals were usually conducted by the goðar, a term which refers to a pagan Chieftain/priest, which was discussed at length by Vesteinsson (1996,2000). Vesteinsson argued that the religious associations to the terms goðar stems from the etymology of the word: goð "deity, and guð, "god" (Vesteinsson, 1996, 2000: 291). According to this author the term was only loosely used to define a chieftain in Iceland, which might suggest its closer association with religion in early Icelandic society.
As religious functions traditionally associated to the godar, Vesteinsson lists the following: hallowing assemblies, running pagan temples, and presiding over religious ceremonies and feasts (ibid.).

**Magical display and behaviour in the literary sources**

On a less formal level, the sagas offer evidence for magical ritual prevailing alongside this more official display of Norse paganism. Divination rites were carried out by women known as volva, these women were called upon to predict the past and the future in a ceremony called seiðr (Hayeur Smith, 1996: 141-142). Odin was the grand master of seiðr, having learned this talent from the goddess Freyja. Men were advised against practising this as it was said to render effeminate, instead they engaged in another form of magical ceremony called galdr (Flowers, 1986: 135; Lecouteux, 1991:215;Hayeur Smith, 1996:142). Eirik's saga offers a description of a volva:

"There was a woman in the settlement who was called Thorbjorg; she was a prophetess and was known as the Little Sybil. She had nine sisters, but she was the only one left alive. It was her custom in winter to attend feasts; she was always invited, particularly, by those who were most curious about their own fortunes or the season's prospects. Since Thorkel of Herjolfsness was the chief farmer in the district, it was thought to be his responsibility to find out when the current hardships would come to an end. Thorkel invited the prophetess to his house and prepared a good reception for her. As was the custom when such women were being received. A high seat was made ready for her with a cushion on it, which had to be stuffed with hens' feathers. She arrived in the evening with the man who had been sent to escort her. She was dressed like this: she wore a blue mantle fastened with straps and adorned with stones all the way down to the hem. She had a necklace of glass beads. On her head wore a black lambskin hood lined with white cat's-fur. She carried a staff with a brass-bound knob studded with stones. She wore a belt made of touchwood, from which hung a large pouch, and in this she kept the charms she needed for her witchcraft. On her feet were hairy calfskin shoes with long thick laces which had large tin buttons on the ends. She wore catskin gloves, with the white fur inside." (Magnússon and Pálsson, 1965:81-82).
It is interesting to point out that this is one of the more thorough descriptions of female dress in the saga literature, and particularly that of a witch or prophetess. I will return to this description later on in this chapter. The subsequent section offers details regarding the treatment of this woman and indicates that a fair amount of ritual behaviour surrounded her presence within the household: how she was treated and what she ate. Having eaten she announces to the head of the household that she is incapable of providing answers to Thorkel’s question and must sleep first. The following day she prepares her seiðr ceremony:

“Late next day she was supplied with the preparations she required for performing the witchcraft. She asked for the assistance of women who knew the spells needed for performing the witchcraft known as Warlock-songs; but there were no such women available. So inquiries were then made amongst all the people on the farm, to see if anyone knew the songs. Then Gudrid said “I am neither a sorceresse nor a witch, but when I was in Iceland my foster –mother Halldis taught me spells which she called Warlock-songs”. Thorbjorg said, “Then your knowledge is timely”. “This is the sort of knowledge and ceremony that I want nothing to do with” said Gudrid, “for I am a Christian”. “It may well be”, said Thorbjorg, “that you could be of help to others over this, and not be any the worse a woman for that. But I shall leave to Thorkell to provide whatever is required”. So Thorkel now brought pressure on Gudrid, and she consented to do as he wished. The women formed a circle round the ritual platform on which Thorbjorg seated herself. Then Gudrid sang the songs so well and beautifully that those present were sure they had never heard lovelier singing. The prophetess thanked her for the song. “Many spirits are now present”, she said “which were charmed to hear the singing, and which previously had tried to shun us and would grant us no obedience. And now many things stand revealed to me which before were hidden both from me and from others” (Magnússon and Pálsson, 1965: 82-83).

This saga as others, was written well after the end of the landnám period and the end of Norse paganism. It may be offering a false narrative of early Scandinavian magical practise. However, in the absence of any other documentation describing ritual, one can only imagine that this sort of ceremony did take place. The way these two areas, magic and religion, were depicted in the literature suggests that magic was somewhat marginal to the latter in Norse society, undoubtedly due to the influences of Christianity when
the sagas were written. It was performed by specialists in specific circumstances to achieve a specific outcome.

The data: magico-religious jewellery

An in-depth classification of religious or magical jewellery from Scandinavia was put forth by Fuglesang (1989) and included the following items:

- Miniature objects (miniature tools or weapons, and chairs)
- Pendant capsules (used to enclose fragrant herbs etc found in the late Viking context)
- Votive rings (large iron rings with: spatulas, hammers, and I-shaped miniatures, particular to East Scandinavia)
- Miniature hammers (occur in pre-Viking Scandinavia and England. During the 10th century they are predominantly made of silver.)
- Cross pendants
- Figure representations and/or gold foils with human depictions
- Beads
- Natural amulets made of stone, or other materials

From the landnám period in Iceland, magico-religious jewellery is rare. This is in itself peculiar particularly in a burial context. Based on Fluglesang's classification a few of these categories have been identified for Iceland, with the addition of bells, which did not figure in the Scandinavian context or in Fuglesang's classification, as they come from the British Isles. In my opinion, bells are associated with religious or magical belief in some manner. However the details of this association will be discussed later on in this chapter.

The total number amounts to approximately 10 items of jewellery and 67 beads.
<table>
<thead>
<tr>
<th>Thor's hammers</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 either cross or hammer? (Fossi)</td>
<td>1</td>
</tr>
<tr>
<td>Cross</td>
<td></td>
</tr>
<tr>
<td>Beads</td>
<td>67</td>
</tr>
<tr>
<td>Bells</td>
<td>3</td>
</tr>
<tr>
<td>Pendants</td>
<td>1</td>
</tr>
<tr>
<td>Rings</td>
<td>3</td>
</tr>
</tbody>
</table>

**Table 21: Jewellery of Magico-religious origin**

**Interpretation of the data**

Items, which belong to magico-religious jewellery in this corpus, are amulets or talismans, implying that this jewellery has more to do with magical practise rather than official religious ritual. We have seen above that while both these areas are closely interconnected, they differ in their aims. Amulets and talismans fall more into the realm of magic despite that they may be associated to official religious ritual, as is the case with Christian crosses. This is precisely where the two overlap. An amulet caters far more to an immediate response and interaction with the supernatural, and is frequently viewed as a protective device against the unwarranted influences from the world where spirits are to be found. It is said that an amulet or talisman, is a concrete object somehow endowed with the power to ward off malevolent forces, or bring to its owner the protection of a specific deity or supernatural force (Flowers, 1986, 143 in Hayeur Smith, 1996:143). It might also be mentioned that generally amulets are movable and can be worn on person, hence the connection with jewellery.
According to Marcel Mauss (1973), much of the magical process is concerned with the fabrication of amulets (Mauss, 1973: 68). Once amulets are created through a ritual process they become endowed with power, can be worn and are effective without the ritual context (ibid.). According to this same author, certain objects do not even require the accompaniment of the ritual as they are, by their very nature, loaded with magical power (Mauss, 1973: 68-69). This is the case with amulets made of certain stones or materials such as we will see in the Icelandic corpus.

**Thor's hammer and cross pendants**

Iceland offers three possible Thor's hammers amulets. Two are definitely Thor's hammers, while the third one is questionable. It appears instead to be a combination of a Christian cross and the pagan hammer (From Fossí 45). Of the more typical hammer-type pendants, one comes from Hofstaðir in Myvatnsveit (no. Hós Mý 98), the other from the Vatnsdalur Patreksfjörður boat burial (no.196).46 The former is iron while the latter is of silver. The iron example is similar to iron Thor's hammers recovered from Birka, and numerous examples have been found in Eastern Europe (Novikova, 1992).

Ellis Davidson (1965) in an article dedicated to the analysis of Thor's hammer amulets in the Viking world, offered a very detailed account of the mythology, use and symbolism, contained in these types of amulets. As was described above Thor was an important deity in the Norse pantheon. While not the head of the pantheon he benefited nonetheless, from an equal amount of popularity as Odin. It is said that the worship of Thor in Scandinavia was quite widespread in certain regions, and had reached its height in the tenth and eleventh centuries (Ellis-Davidson, 1967: 132).

---

45 See chapter 7, p.356 (Plate 10).
46 See chapter 7 p.360 (Fig.90) for illustrations.
Thor was one of Odin son's and was said to be the god of war, thunder, the protector of the gods. He guarded the other gods against the "evil beings which menaced the secure world" (Ellis-Davidson, 1965: 3). His weapons included his hammer (Mjollnir), thunder bolts, as well as his strength belt and glove (ibid.). His hammer was his greatest weapon and was used like a missile thrown through the air, never missing its mark (Ellis-Davidson, 1965: 4). There is indication that Thor may also have been associated with crops and fertility due to his control over thunder and rain (Ellis-Davidson, 1965: 11). According to Eliade (1965) and Ellis-Davidson (1965), thunder gods are frequently blacksmiths in various parts of the world and the theme is not unique to the Norse (Eliade, 1965; Ellis-Davidson, 1965: 8). However, Ellis-Davidson argued that Thor's initial connection with smithing had been lost over time, as his hammer in the mythology was no longer forged by himself but by dwarves (ibid.).

According to Ellis Davidson, the way the hammer functioned as amulet was that by wearing this weapon of destruction its owner was in a sense protecting him/herself from the power of thunder (Ellis-Davidson, 1965: 9). The wearer of the amulet, by placing him/herself behind the hammer was imitating the action of the god depicted in the mythology, whereby the hammer stood between the gods and their enemies (ibid.). Ellis-Davidson saw the notion of thunder as an important element from which one might need protection when wearing the hammer, and along the same lines questioned the popularity of the cult in Iceland due to the lack of thunder storms in that country, as well as the infrequent discussion in the Icelandic literary sources regarding the cult of Thor (Ellis-Davidson, 1965:5). Yet the place name evidence indicates that Thor was worshiped in the early Iceland despite Ellis-Davidson observations (K.P. Smith, personal communication, 2001). Could it be that we have an ethnocentric and Judeo-Christian view of paganism in thinking that the Norse felt the need to venerate one deity in the form of single cults? It was after all a polytheistic religion. Could it be that
different gods were worshiped at different times and in different circumstances? (K.P. Smith, personal communication, 2001). It is an interesting fact that Icelandic graves offer high numbers of spears (56 graves in total) far more than any other weapon (Eldjárn, Friðriksson, 2000: 600), and yet the spear was the weapon associated with the god Odin, owner of the spear Gungir. Death and the afterlife and notably Valhalla belonged to realm of Odin, and Valhalla was the afterlife of choice where people aspired to go. So why not offer tokens to this god in the context of death and save the hammers for other situations where protection was required, such as the protection of hoards, or farmsteads? Furthermore, Ellis-Davidson stated that hammers were more frequently found in hoards than in graves (Ellis-Davidson, 1967: 136). Of the three hammers described here only one came from a grave while the other was found in a midden, and the combined Thor’s hammer/cross from Fossi, a stray find. It is more than probable that certain gods were associated with certain realms of life and it could be suggested that during death two gods were evoked: Odin and Freyja while Thor may have catered to other social needs. This is supported by examples of boat burials generally thought to be associated with either the goddess Freyja, Frey, the Vanir in general, or Odin (Ellis-Davidson, 1967: 130). The Scar boat burial in Orkney was such a case thought to be dedicated to the goddess Freyja (Owen & Dalland, 1999).

The Thor’s hammer/cross from Fossi (no. 6077), made of silver, deserves particular attention and has been labelled by some as a Thor’s hammer, while others have described it as a Christian cross. No other example is know like it in the Viking world and based on its design and craftsmanship this piece could have been locally produced in Iceland⁴⁷. I feel it reflects a combination of religious ideals: Christianity in the general cross-shape as well as Norse paganism in its somewhat hammer-looking shape. The animal head portrayed at one extremity of the pendant further enhances the pagan

⁴⁷ See chapter 7, p. 351 on locally made jewellery.
element. It is tempting to think that it portrays the wolf Fenrir, son of Loki and responsible for the onset of Ragnarok, the end of the world or twilight of the gods (Hveberg, 1976:82). By combining faiths its owner was doubly protected. One could even argue that it was created during the introduction of Christianity into Iceland when people were uncertain about abandoning their old ways and beliefs.

In the Icelandic corpus there is one example of a cross-like pendant (no.2033) (Fig.69). It is unclear whether this piece is a Christian cross or simply a cross motif, possibly even a stylised hammer, without any Christian connotations. It is made of sliver, is a stray find, and unfortunately its provenance is unknown. It is decorated with interlace designs and one side with a small stylised beaked animal head possibly a bird of prey, not unlike ones which are depicted on Thor's hammers in Scandinavia. Ellis-Davidson argued that early crucifixes in Denmark were close in form to the hammer (not unlike this piece), and that equal arm crosses were already in use as a symbol associated with Thor during the pre-Christian period (Ellis-Davidson, 1965: 10). Undoubtedly, this piece was more closely associated with Thor than with Christ.
Another possible amulet associated with the god Thor comes from Rangá and was found in a burial context. This piece is made of copper alloy. It is triangular in shape and portrays the face or mask of a bearded man (no. 12384) (Fig. 70).
It is not certain whom this character is intended to represent except that this motif if is frequently displayed on Norse metal-work. It is not unlike the small figure of Thor from Eyrrarlndi, as well as certain mask figures depicted on Danish rune stones, such as the Sjellebro stone, or the stone Arhus 3 in North Jutland (Moltke, 1985) (Fig. 71). Moltke (1985) believed the mask motif on stones was placed there to protect and terrify (Moltke, 1985: 252). Furthermore, he associated it with a demon face (Moltke, 1985: 253) but it could also symbolise either the god Thor or Odin and, therefore, function as an amuletic not unlike a Thor's hammer?
Rings in the literary sources have been associated with this deity. Certain Scandinavian Thor’s hammers are fitted to a large ring. None of the Icelandic examples display this particularity, but Ellis Davidson argued that rings were also associated with Thor (Ellis Davidson, 1965: 12). Based on Icelandic literary sources, this author stated that the ring was an essential element of the furnishing of Thor’s temples and that priests frequently wore large rings of gold or silver on their arms (ibid.). Furthermore, it was on such rings that oaths were sworn between men under the protection of the god (ibid.).

**Arm rings**

I have recently discussed the possible association of rings with the god Thor, though as described earlier on, Odin too was said to possess sacred rings. It is therefore, difficult to attribute any form of ring to either deity. Bracelets and rings in general are by their nature charged with spiritual value. The very shape being circular and closing upon itself symbolises unity. Rings are also convenient devices for storing precious metals hence the abundance of rings in hoards\(^48\). It is not without reason that our own society attributes a

\(^{48}\) See chapter 5, p.168.
symbolic meaning to rings, using them to stress the sanctity of marriage and the unity between two people. Marriage constitutes the swearing of an oath between a man and woman, not unlike the swearing of oaths by men in the early Icelandic literature. In Gisli Sursson's saga, translated by Regis, Boyer (1987) it states:

"Ils dressent de longues bandes de gazon hors de terre, de telle sorte que leurs extrémités restent fichées en terre. Ils placent en dessous une lance incrustée, telle qu'un homme debout puisse atteindre de la main les clous qui fixent le fer au manche. Ils devaient passer là-dessous tous les quatre, Thorgrimr, Gisli, Thorkell, et Vésteinn. Maintenant, ils s'ouvrent une veine et font couler ensemble leur sang dans le trou laissé par les mottes de gazon, et mèlent le tout terre et sang. Puis ils tombent tous à genoux et font le serment de venger chacun d'entre eux comme son propre frère..." (Boyer, 1987: 580).

Simpson (1967) published this same passage. In this translation the turf was said to have been cut as a "neck-ring the long strips forming an almost complete circle" (Simpson, 1967: 147).

Thierry (1968) dedicated a paper to the study of sacred bracelets from the far east located in collections at the "Musée de l'homme" in Paris. This author was able to identify different categories of bracelets, all of which were attributed in some manner to the magico-religious dimension of society. Among the collection were Thai bracelets worn by healers used in the exorcism rites and decorated with an array of symbols referring back to the Thai myth of creation (Thierry, 1968: 128). While nothing similar has been identified in the Norse context, it is interesting to note that in many diverse cultural settings, bracelets and rings are frequently endowed with spiritual meaning.

Icelandic graves offer 3 examples of possible amuletic rings stemming from burial contexts. Two of these are made of twisted copper alloy wire and are thin and delicate that one can only wonder what their intent was: decorative or amuletic? One of these is from the grave at Dáðastaðir, the other from
Skansinn in the Westman Islands\textsuperscript{49}. They are both from female burials. The Daðastaðir burial could be considered a high status burial due to the abundance of grave goods\textsuperscript{50}. Eldjárn stated in his report published in Arbók 1957-58, that the Daðastaðir bracelet was indeed an amulet (Eldjárn, 1958: 138-143).

The third arm ring, from Alaugarey (no11565), may have acquired its amuletic properties (if any) from the material it was made of lignite or jet, though lignite is more probable (F. Hunter, personal communication, 2001)\textsuperscript{51}. This is the only example of a “jet”-type arm ring from all of Iceland, yet several of these have been found in Norway, Scotland as well as the Faroe Islands, and appear to be items of jewellery proper to the North Atlantic region. This fashion may have been influenced from settlers coming from the British Isles. Jet, shale and lignite were all used for the making of bracelets, rings or beads, and one might question what the attraction was for black jewellery. In my opinion its originality and uniqueness, like amber, may have contributed to its quasi-amuletic meaning, and it is tempting to speculate that black jewellery (lignite, jet or shale) was somehow endowed with magical properties to these people. The amuletic properties of these materials were recognised by Fuglesang (1989). She offered as example a jet bead from a woman’s grave in Sunnmøre, Norway found in conjunction with a jet serpent, as well as a woman shaped bead of amber and an additional 66 glass beads (Blindheim, 1978-59:82 in Fuglesang, 1989: 20). At the same time, this author concurred that there was nothing to suggest that the material was amuletic (Fuglesang, 1989:21). In Scotland, similar arm rings were found in female burial contexts such as the grave from Castletown, Caithness (Plate 4.), as well as settlement sites such as Jarlshof in Shetland, and Birsay. A

\textsuperscript{49} See chapter 7, p. 351 on locally made items of jewellery from Iceland and illustrations p.359 (Fig.88) of the same chapter.

\textsuperscript{50} See Part 2, p.263 of this chapter on status.

\textsuperscript{51} See chapter 7,p.315 on the discussion of materials found in the Icelandic corpus, and for an illustration of this bracelet see p.188 (Fig.49).
similar bangle was found at Toftanes in the Faroe Islands on a farm site (Stummann Hansen, 1995: 482).

Plate 4: Bracelet from Castletown, Caithness, NMS. (Photo: M. Hayeur Smith).

While there are other armbands in the Icelandic corpus, it is not certain whether their meaning and intent was amuletic or not; for this reason they were not included under magico-religious jewellery. Two identical bracelets made of copper alloy (Figure 72) were found in the Vatnsdalur boat burial (no1964:128-129). They have parallels in the British Isles notably from the Skaill hoard, the Isle of Skye, as well Kirk’O Banks in Caithness, and Burray in Orkney (Graham-Campbell, 1995). This author labelled this type of bracelet as “ring-money” as the British examples are frequently made of silver and found in hoards (Graham-Campbell, 1995). The Vatnsdalur examples cannot be attributed to ring-money as they are not made of silver, are slightly decorated and were found in a burial context. The significance and use of these bracelets is unknown.
By the same token, another silver bracelet of unknown provenance does fit the definition of "ring-money" and is made of silver (no. 10891) (See Fig. 29). It is made of a flat strip of silver plate tapering at its extremities, decorated with a stamp motif all around the band. In the category of non-amuletic arm-rings are also three rings from the Miðhus hoard all of, which were silver\textsuperscript{52}.

\textsuperscript{52} See illustration of these types of bracelets in chapter 5, p. 169.
**Beads**

This brings me to the next category of jewellery that reflects magico-religious associations. Overall beads have not been viewed by scholars as containing any specific magical or religious association, and rightly so, as this aspect is frequently hard to perceive in the archaeological record. However, as the orientation of this thesis is a social one, and jewellery is viewed as one small element in a global symbolic system of adornment, it is necessary to address beads and verify what their social meaning was, and if they may possess magico-religious associations worth mentioning.

In Fuglesang's (1989) list of Viking period amulets, beads were mentioned as one category, and she included as types of beads: jet, amber, and rock crystal (Fulgelsang, 1989:20). I would extend this definition further to include all materials from which beads were made including glass. Beads resemble stones, and stones are found in many cultural contexts, associated with magic. One need not look so far to see the amuletic properties of stones. The Icelandic grave of Ketilstaðir, a wealthy female grave was given an abundance of grave goods, including a small and rather strange piece of stalactite. Other Icelandic graves also display small stones (other than flint and jasper used to light fires) indicating that stones may frequently have been given amuletic meaning. Grave 1 from Hafurbjarnarstaðir, a female grave the contents of which were discussed in part 2 of this chapter, contained along with other grave goods two pebbles of unusual shape (Eldjarn and Friðriksson, 2000:561).

Both Fuglesang (1989) and Ellis-Davidson (1965) have discussed the magical properties of stones. Fuglesang, labelled stones, claws, fossils etc as "amulets of natural origin" and mentioned that they were only rarely recorded in Viking graves, to the exception of Iceland, yet added that it was uncertain if they could be interpreted as amulets in the Icelandic context.
Ellis-Davidson on the other hand, based on ethnographic research from Scandinavia, stated that small stone axes, or stone fossils, such as sea-urchins etc, were regarded as thunder weapons and a folk belief had them fall from the sky during storms to be buried deep into the earth (Ellis-Davidson, 1965:6). Following a period of seven years they would resurface and could be used as amulets (ibid.). She added that in the early 1900 stones were kept in various parts of houses as protective devices against lightning and fire (ibid.). The connection between beads and stones is quite explicit, and it is tempting to think that in Iceland their meaning may have been more than just a visual display. Certain Icelandic beads are carved from local stone further supporting this hypothesis (no. 11704, from Bárðardal).

Interestingly enough beads in Iceland are found in 42 graves in various quantities (Eldjárn, Friðriksson, 2000: 604). Beads are also common as stray finds and on settlement sites. What struck me as particular about Icelandic beads in burial contexts, is that even the poorest of graves with graves goods (considered as lower status burials among the more affluent strata of society) may contain at least one bead. This is an interesting fact in comparison with Norway and the analysis carried out by Solberg regarding status and burial in that country. She noted that in Eastern Norway the poorest burials rarely contained beads (Solberg, 1985:247). Furthermore, beads in Iceland are found regardless of sex, while certain male burial display some very elaborate necklaces. These factors have lead me to speculate on the need to offer beads as grave goods unless they may have been perceived as somewhat amuletic.

Among the more elaborate bead necklaces from Icelandic graves are from Reykajsel (no.7696), a necklace (Fig.73), 17cm long (34 beads) consisting of a combination of amber and glass beads. This necklace was from a male burial. From the same gravesite, a female burial contained another bead
necklace also significant and consisting of a combination of glass and rock crystal beads (4868) (Fig. 74). The female burial of Björk (12736)(Fig. 75) had a necklace made of amber and glass beads; and from Kornsá (No.1782) the bead necklace was suspended between two tongue shaped brooches (discussed above) (see Plate 3). Also worth mentioning is the bead necklace from the Vatnsdalur boat burial (no.1964: 131)(Fig.76), and from Miklaholt (no 6464) (Fig. 77).

Figure 73: Reykjasel pendant (no.7696) (17cm x 2.5cm) made of a combination of amber and glass beads (Illustration: M. Hayeur Smith).

Last but not least, the stray find from Mjóidalur (no.10913-14) (Fig.59) is the only Icelandic pendant to contain cufic coins added among an array of blue, green, yellow, transparent, and milifiori glass beads. Numerous graves contain one or two beads, frequently made of amber such as the wealthy male burial from Eyrartigur.
Figure 74: No 4868 from Reykjassel from a female burial (27cm x 2.1cm) (Illustration: M. Hayeur Smith).

Figure 75: Bead necklace from Björk (no.12736) (14.9cm x 1.85cm) (Illustration: M. Hayeur Smith).

Figure 76: Bead from the Vatnsdalur boat burial (no.1964: 131) (12.6cm x 2cm) (Illustration: M. Hayeur Smith).

307
Amber beads are a category of beads that may have had some magical connotation in early Iceland. In my opinion, their association to Freyja is indisputable. Amber is a material like jet, lignite or shale, where the material may have been considered amuletic. Pokornowski (1979), in an anthropological study of beads among the Yoruba, noted that in this society specific beads and bead colours were attributed to certain gods. Therefore, if people worshipped the creator of the earth, Odudwa, no beads were worn, and only priests wore a string of white beads. Those who venerated Orishala wore multiple strings of small opaque white beads (Pokornowski, 1979: 107). What this example demonstrates is the potential culturally complex meanings associated with specific beads. Therefore, amber in the Norse world was possibly a material identified with a specific deity: Freya. Freya was said to have in her possession an amber necklace by the name of Brisingar which was stolen on one occasion by Loki the trickster (Dillman, 1991: 173). There is a connection between amber and Freya, who is called upon in matters relating to love, death, fertility and magic. In fact Snorri's Edda informs us that Freya was associated with all beautiful things.
such as precious jewels, and the tears she wept for her long lost husband were said to be tears of gold (Dillman, 1991:65). Amber beads as well as other beads may have been in some way connected with Freya and her protection.

Furthermore, if we return to the description of the seiðr and the costume of the prophetess quoted above, it is said that she was clad in a blue mantle decorated with stones down to the hem and a necklace of glass beads. She also wore a lambskin hood lined with white cat’s fur and cat skin gloves. The reference to the cat’s fur and cat’s skin is again a direct link with Freya who was said to ride in a chariot pulled by cats. It may be that glass beads, as possibly all beads, were in someway connected to her protection.

**Bells**

The final category of jewellery with possible magico-religious meaning is bells. Bells have not been recognised by Fuglesang (1989) as being amuletic. This may be due to the fact that bells in Iceland come from the British Isles and are, therefore, somewhat unique to the cultural setting of the North Atlantic. The bells in question are very small and are on average no larger than 1.95 cm in diameter x 3 cm in height. Iceland has three examples (fig), while Ireland, Scotland and England, offer numerous examples.

There is no doubt that these bells were in some way connected with the magico-religious dimension of society of the North Atlantic. To be that small and included as grave goods clearly indicates that they were intended to be worn as jewellery, though due to poor excavation records no information is available on what part of the body they were worn.

---

53 See chapter 5, p.170 as well as discussion on Insular jewellery in graves in part 2 of this chapter p.272.
Bells figure in Christianity as important symbols calling the devout to prayer and for some researchers the connection between the small bells of Iceland and the British Isles, and their link with Christian worship is evident (B. Crawford, personal communication, 2000). However, the bells in this corpus could be one of two things. As they were found in a pagan burial settings they were possibly reflecting questions of cultural identity as these people had some connection with the British Isles, or they symbolised something other and were perceived as devices to ward off evil spirits.

From my own experience in North Africa, bells and sequins are sewn to carpets as items that ward off evil spirits. Furthermore, it is said that the evil spirit and female demon of Aicha Kandisha of Morocco can be recognised by the jingling of bells, therefore, men are warned to take great caution so as not to fall under her spell. In many cultural settings bells, sequins, and any item which makes noise are connected in some way with the spirit world. Mircea Eliade (1974) in his book on Shamanism noted the use of bells as part of the Siberian Shamans' costumes, along with animal skins, bird feathers, magical sticks and drums (Eliade, 1974, 177). Among the Yurak-Samoyed, the shamans wear seven bells representing the voices of seven celestial maidens (Eliade, 1974: 278). While there is no certainty that this was the case in early Iceland, it is suggestive of magical intent, possibly as protective amuletic items used to ward off evil spirits and, interestingly, only found in women's burials.

Religious dress and adornment

The above analysis explored types of "religious" jewellery that might be worn by the early settlers of Iceland and the North Atlantic. By the use of amulets, a person can display issues of personal identity and convey to his community what he is venerating, whether he is pagan or Christian, whether he makes
use of magic, and if at all relevant, to which deity he calls upon. Therefore,
on the level of religious identity the wearing of amulets is an expression of
individuality, and one's desire to control or bring upon oneself the benefits of
the spirit involved with the amulet and its creation. But how these amulet
were worn is difficult to ascertain due to the poor archaeological record for
Iceland and the fact that pagan burials have been subjected to so much
damage from erosion. Thor's hammers were presumably worn around the
neck, as were beads. Bells could have been sewn to garments, or worn on
belts, or as pendants, or even figured as children's toys or trinket, though
there is no evidence for the latter in early Iceland. Rings were clearly worn on
the arm or finger. Amulets in general may have been worn close to the skin
and therefore, not always visible.

Religious dress and adornment offering information on the religious status of
individuals on a more public level is not visible from this corpus of data, nor is
it apparent elsewhere in the North Atlantic. Undoubtedly, priests or seeress
were recognisable by certain visual clues worn on their bodies either in the
form of costume, jewellery, hairstyle, or permanent adornment such as
tattooing. Unfortunately, none of this survives today. The only description
available is from Eirik's Saga quoted above which pertains to Iceland as the
saga itself is Icelandic.

This lack of official religious adornment could be understood in light of
Douglas's theory on the body. As discussed in Chapter 3 and elsewhere in
this chapter, Douglas (1996) argued that the more control was present in a
given society the more control would be exerted on the body, and this control
could take on the form of strict rules of bodily conduct, as well as dress and
adornment (Douglas, 1996: 74). Following in the same line of reason she also
put forth the concept of the "purity rule", that is:
"along the dimension from weak to strong pressure the social system seeks
progressively to disembbody or etherealize the forms of expression; this can
be called the purity rule" (Douglas, 1996: 76)
In my opinion the purity rule is a form of “mystification” of the body whereby the body loses its biological attributes and strict rules of conduct emerge concerning the physiological needs such as urination, defecation, sneezes, sniffs etc (ibid.). In the purity rule Douglas also incorporates social spatial concerns, thus, greater physical distance suggesting greater formality etc (ibid.). The purity rule serves to polarise the physical body from the social one (Douglas, 1996: 77). Applied to religious dress and adornment the purity rule will be expressed by the presence of condensed symbolic expressions, abundant rules applied to the body’s biological functions and conduct, combined with strict rules of dress and composure. Specifically relating to the Icelandic context it is impossible to know if strict rules of behaviour and conduct were enforced in early Icelandic society and accompanied elements of appearance. From the evidence for religious jewellery and adornment, I would tend to argue that relative to other cultural settings, polarising the physical body from the social one appears non existent in early Iceland. The same is true for other forms of adornment. As was discussed with oval brooches, the evidence seems to point towards concealing the body through clothing but incorporating the physical body and incorporating it into the symbolic constructs of the social one, by acknowledging its procreational value, rather than the other way around.

It is difficult to arrive at concluding remarks regarding the use of magical or religious jewellery and the treatment of the body as was carried out on gender and jewellery in part one of this chapter. The numbers in this section are smaller, the data-sets incomplete, and it is difficult to get a glimpse of religious cultural attitudes expressed through jewellery, adornment and the intentional manipulation of the body. All that remains are the literary and historical sources and one can attempt, with these sources, to draw parallels with the results from the archaeological record. But the archaeological
record only indicates that in the burial context amulets were present in early Iceland and the in North Atlantic.

Concluding remarks

This chapter has attempted to offer an overview of a social use of jewellery as adornment in landnám period Iceland with a comparative look at the material from the North Atlantic. While the numbers in this corpus are small and the data frequently faulty, such a task is difficult to achieve. However, being a first study of this kind for this part of the world all the ideas in this section are my own hypotheses and I believe are worth considering in order to develop a more comprehensive analysis of the socio-cultural use of material culture and jewellery in Iceland and the North Atlantic.

Despite the discrepancies in the data, jewellery and adornment in early Iceland were prevalent in three social contexts: to convey attitudes and notions of gender as well as gender roles, to convey concerns about social hierarchy and status, and to convey ideas on religion, magic and the supernatural. Gender and gender roles were firm social categories in the settlement period of Iceland, that jewellery and adornment visually and symbolically enhanced. Male and female gender appear as distinct categories with evidence than cross dressing and multiple genders may not have been widely accepted.

Regarding status, items of jewellery may have come to symbolise issues of social and cultural affiliation. By wearing certain items of jewellery men and women equally could state their social affiliations in a society where the negotiation of power and status were becoming increasing concerns due to the complexification of the Icelandic social structure. In the following chapter
the question of status will be addressed further with reference to materials, craftsmanship and technique recorded in the Icelandic corpus of jewellery.

Magico-religious jewellery was minimally represented in the archaeological data revealing only that magic was practised and that people made use of amulets in a burial setting. Jewellery and adornment in early Iceland were utilised symbolically to reflect human needs of distinction and identification, as is this case throughout time and all over the world. The three areas discussed in this chapter where jewellery prevailed, are all metaphors of personal identity and on a larger scale they also touch upon aspects of the cultural identity of the groups present.
CHAPTER 7

Jewellery materials, craftsmanship, technique and non-ferrous metal production in Iceland

In the previous chapter a social analysis of jewellery was conducted. Various areas were touched upon such as the social role of jewellery and gender, jewellery and status, as well as jewellery in magic and religion. In this chapter I propose to look into the technological aspects of the jewellery in the corpus, some of which will complement the discussion on status. I will address topics such as, materials, quality of workmanship and techniques used in the Icelandic corpus. In Part 2 to complete the focus on jewellery techniques, I will verify if jewellery could have been made locally, and what exists in terms of archaeological information supporting local manufacture of jewellery in Iceland.

Part 1: Jewellery techniques, materials and craftsmanship

Jewellery and materials: results from the database

Icelandic jewellery from the Viking period, is made of a variety of materials. Amongst others, copper alloy, silver, bone, amber, gold, as well as iron. As the focus of this dissertation has been an anthropological understanding of jewellery, less traditional forms of jewellery and adornment have been included in the corpus, offering a more diverse range of materials recorded.
Despite the diversity in materials, Icelandic jewellery from the Viking period is made predominantly of copper alloy. This is in keeping with jewellery from Scandinavia and elsewhere in the North Atlantic where the Norse settled, and a similar pattern can be observed in Scotland, as well as the Faroe Islands as well as Scandinavia.

From a total of 253 items of jewellery recorded for Iceland, 134 (total number) of these are made of copper alloy, while only 35 items are made of silver. Both these metals were popular during the Viking period, though silver/gold were more highly regarded, with silver generally associated with wealth and trade and not frequently found in graves.

Copper alloy jewellery appears most frequently in grave contexts (86 items in this corpus) suggesting that it was reserved for more popular forms of jewellery, such as brooches, ringed pins, penannular brooches, and occasionally bracelets. Furthermore, most copper alloy was gilded.

Gilded copper alloy jewellery was frequently decorated with silver coloured fineries, imitating more precious metals. A good example of what certain oval brooches may have looked like, can still be observed on the pair of well preserved oval brooches from Kneep in the Hebrides, Scotland. As
described in Chapter 2 they are both P51c type oval brooches, but are not a pair cast from the same mould. IL 799 is slightly longer though finer than IL 800, and the designs on the side panels differ. IL 800 reveals that, while the main body of the brooch was gilded, adding silver colouring enhanced certain details. The silver-coloured elements on the brooch are apparent in the bosses, as well as on the flanges of the rim of the lower shell. Silver wire would also have adorned the brooch. An XRF analysis of these areas, indicated that the silver colouring was achieved by adding an acid-etch to the surface, thus, removing the copper and leaving a tin finish on the brooch (Welander et al. 1987:160). The remains of one additional boss was still attached to the top shell, through analyses it proved to be made of a lead/tin alloy (ibid.). The overall appearance of these brooches must have been quite “baroque” by modern standards, and it is tempting to think that the intent was to convey a sense of wealth and prestige by the use of gold and silver colouring, imitating the more prestigious gold and silver jewellery of the élite.

Silver jewellery in the Viking period is found in grave contexts of Scandinavia, and hoards for the most part. In Iceland the picture is not significantly different. Some graves contain silver jewellery though they are few. Silver jewellery appears in graves in the form of Cufic coins mounted as pendants such as the example from Vatnsdalur (no.67- no number); as small rings in the graves of Hafurbjarnarstaðir (ni.13681), Brimes (no.12113); or as round brooches such as Stóra-Sandfell (no.25.6.82)54; or as silver threaded buttons such as in the grave from Kápa (no. 9084). Silver had also been noted on weaponry, in the form of silver inlay decorations, such as the spear heads from Kotmüla (no.1960:84) and Koreksstaðir (no.4195), and on swords from Kalárþöfði (no.13535) and Hafurbjarnarstaðir (no. 559).

54 See chapter 5 p.159 (Fig.17).
Silver jewellery from hoards was also included in the corpus of Icelandic jewellery making up the majority of silver items. The most significant hoard of silver jewellery and neck rings from Iceland, comes from Míðhus. Discovered in 1980, this hoard was the source of much controversy, and was believed to be a hoax fabricated during the 20th century. However, following an analysis of the silver by researchers at the National Museum of Denmark, its authenticity was demonstrated to have the same metallurgical content as silver from Viking period material from Denmark (Freysson, 1994: 22-23). It consists of 653.50 grams of silver, 9 of which are recognisable items of jewellery, while the remaining pieces are ingot fragments and scrap silver. The jewellery is, for the most part, twisted-rod neck rings similar to torques found in the Skáill hoard from Orkney. Other hoard jewellery includes a penannular brooch fragment from the Sandmúli hoard, a piece identified as being from the 9th century and of Irish manufacture (Graham-Campbell, 1995: 43). It was rechased with a Mamman style beast by a Norse craftsman. (ibid.).

A material which is very rare in Iceland is gold. From the Viking period in Iceland the only item of gold jewellery recorded comes from the grave of Kápa (no. 11556) and is a gold button made of braided wire. Three identical silver examples were found in the same grave. From the Medieval period a small penannular brooch (no. 803) from an unknown provenance, exists. Based on my museum analysis, it is made up of two winged birds or dragons that meet at one extremity of the ring, their tails are knotted together. (Fig. 78)

![Figure 78: No. 803) (2cm x 2.1cm) made of gold and probably from a later period. (Illustration: M. Hayeur Smith).](image)
Other materials which figure in the corpus are amber (discussed in Chapter 6 under magico-religious jewellery); glass usually in the form of glass beads (also discussed in Chapter 6); iron and bone (discussed at the end of this chapter), and jet (also discussed in Chapters 5 and 6) of which there is only one example.

The jet found in Iceland is an arm ring from the grave of Alaugarey and is identical to arm rings found elsewhere in the North Atlantic: such as Toftanes in the Faroe Islands, Castletown in Caithness, the Brough of Birsay in Orkney as well in Ireland and several other areas in Scotland. Most of these arm rings have been falsely labelled as jet. Hunter (2000) from the National Museum of Scotland demonstrated that in the past materials such as jet, shale, lignite and cannel coal have been confused. Furthermore, it is considered to be the more rare material of this category (ibid.) Hunter demonstrated that the source of jet is restricted to Whitby during this period, while the other materials have sources throughout Scotland (Hunter, 2000: 1). Based on photographs of the Alaugarey arm band, Hunter concluded that it was probably made of lignite (F. Hunter, personal communication, 2000).

*The social message in metals*

From the results presented here, it would seem that most early Icelanders were adorned in death (and possibly in life as well), with copper alloy jewellery. The gilding of copper alloy gives it the appearance of gold, while having the advantage of being much cheaper to produce and sell. From a social perspective, gold jewellery was evidently perceived as a precious and highly valued material, and in the absence of it, jewellers attempted to

---

55 See chapter 2, p. 77 on the literature published on jet by Hunter (1999, 2000), as well as chapter 6, p.304 on religious and magical jewellery and the possible magical meaning of jet.
imitate it. During the Viking period in general, gold may have been a material that was not readily accessible to everyone and reserved for élite groups.

With gilded copper alloy jewellery comes another concern. If we are to assume that precious metals such as silver or gold were highly prised and people attempted to replicate it with gilding, then one might suggest that gold and silver equated higher status in the mindset of the time. With this in mind the few graves to contain the odd item of silver may have been perceived during the landnám as “high status” in comparison with other graves without silver jewellery. Therefore, the grave from Stóra Sandfell containing an elaborate round brooch with filigree and granulation also included as grave goods: a horse, iron fragments, an iron buckle as well as some beads and an iron weight (Olafsson, 1995:6). At first glance one might conclude that this is a middle range burial, not necessarily high status with few grave goods, but perhaps we need to change our outlook and broaden our perspectives. It is possible that this grave, because of the presence of silver jewellery, may have been considered as higher status than the elaborate female grave of Daðastaðir containing a significantly larger number of grave goods and copper alloy jewellery. It is precisely in this manner that artefacts in a burial context can reveal social preoccupations of their owners.

The saga sources are particularly misleading when it comes to additional or comparative information regarding the metals used in jewellery in early Iceland. The archaeological data with his high percentage of copper alloy fineries does not support the descriptions of gold or silver jewellery in the sagas. From the Laxadaela Saga Ch. XX:

“But before Olaf and Melkorka parted she gave him a fine gold ring and said, “ My father gave me this ring as a teething ring, and I expect he will recognise it when he sees it” (Magnússon and Pálsson, 1969:88)

From Chapter LXIII from the same saga:
“Next there was a man sifting on a pommelled saddle wearing a blue cowled cloak and with a silver bracelet on his arm...” (Magnússon and Pálsson, 1969:204).

Or from the Poetic Edda, and the Lay of Atli:
“Gold she scattered, the gosling-bright woman, red gold rings she gave to the house servants; she let fate culminate, and the shining metal flow, she did not care at all, that lady, about the temple stores!” (Larrington, 1996:261)

and from Thrym’s Poem:
“ In came the wretched sister of the giants, she dared to ask for the bride’s wedding gift: ‘give me the red-gold ring from your hands, if you want to merit my love, my love and all my favour’” (Larrington, 1996: 101).

Not to mention the “eight ounces of gold woven into the head-dress” of Hrefna in the Laxdaela Saga (Magnússon and Pálsson, 1969:162-163), and there are more.

A similar pattern was noted in the British Isles, with regards to conflicts between Britons and Anglo-Saxons by the archaeologist Alcock (1987), when he compared the information pertaining to jewellery in the poem of Gododdin with the archaeological record. In the poem were countless details about the elaborate gold jewellery worn by its heroes, Mynyddog and his war-band, notably brooches and torques (Alcock, 1987: 248). It was demonstrated by this author that no known gold brooches were found in the archaeological record or gold torques for that matter. He demonstrates that the brooches worn would have been penannular in form and made of silver not gold (ibid.). As for torques, the author argued that this was no more than an anachronism, as neck rings of bronze and gold belong to the Celtic and pre-Roman Iron Age with no evidence of them being worn after then second century AD. The torques worn by these characters would, therefore, have been made of silver (ibid.).

What this example as well as the Icelandic descriptions offered above indicate, is that one must practise a degree of caution when using historical
sources of this nature, reflecting literary styles and genres rather than true fact. In some instances they prove to be unworthy while in other circumstance, as presented in Chapter 6, they can enhance the results of the archaeological data. With reference to jewellery materials, the archaeological record supports that copper alloy jewellery was the norm, rather than the gold and silver described in the literary or historical sources.

**Quality of workmanship: results from the database**

As part of the database design a category was created that would help evaluate the degree of craftsmanship of the jewellery. I felt that with a practical knowledge of jewellery making, I would be able to recognise what could be attributed to poor craftsmanship and what could be attributed to decay or corrosion. I felt that such a section could offer supplementary information on the social use of jewellery as well as information on the social background of those that purchased and wore it.

Three criteria for evaluation were devised: poor, average and fine. These criteria were based on technical details such as crispness of design; attention paid to finishing, pre-casting touch-ups, and overall final appearance of the pieces.

Icelandic jewellery of the landnám, is for the most part, of very average quality with 87 items considered as “coarse”, 103 as “average”, and 29 as “fine”. This indicates that most jewellery worn was of fairly average to poor quality, suggesting that the earlier settlers were not equipped with the most fine attire.

---

56 See the criteria for quality of workmanship established during data collection, p.130 and p.135.
Table 23: Degree of craftsmanship noted in Icelandic jewellery.

Social concerns

These results offer an interesting contrast to the Viking and Hiberno-Norse jewellery found in the British Isles. From my analysis of Scottish Viking period jewellery, I was surprised by the high degree of craftsmanship. It led me to consider why Iceland was endowed with such poor quality jewellery? Could this suggest that the Icelanders were less affluent than the settlers from the British Isles? Or is the Icelandic grave sample not representative of the true social make up of the settlers?

Icelandic graves with grave goods are, by the very presence of grave goods, higher status burials but are not the graves of the very affluent or wealthy chieftains. No Icelandic graves truly fit the description of a "chieftain's" grave, though Friðriksson (2000) identified several "wealthier" burials in the new edition of Kuml og Haugfé. To name a few, the graves from Kaldárhöfði, Hafurbjarnarstaðir, Vatnsdalur, Miklaholt, Kornsá (Eldjárn and Friðriksson, 2000:597). The overall impoverished Icelandic burials could be the result of erosion, and the problematic climatic conditions of Iceland which have been responsible for much of the deterioration of the pagan burials in general. We may, therefore, have an altered and inaccurate picture of the social make-up of this early society.
The first Norse to arrive in the Northern and Western Isles of Scotland took place towards the end to the 8th century with early raiding activity occurring at Iona in 795, 802 and 806 AD, as well as raids in 795 in the Western Isles of Scotland (Graham-Campbell and Batey, 1998:2-24). Iceland according the Islendigabók was settled in 870 AD (Hermannsson, 1930: 60). Before the settlement of Iceland, people are said to have been aware of an island to the west, suggesting that scouting expeditions were carried out from the British Isles long before the settlement took place, making these two regions closely interconnected (Jones, 1986:41). The difference between the Norse settlement in Scotland, and Iceland lies in the fact that the Scandinavians encountered local inhabitants upon arrival in Scotland. With the exception of a few Irish papar, Iceland was void of any local population. In Scotland this resulted in the new Scandinavian colonists, usurping power from the local inhabitants, placing them into élite positions. According to Crawford (1987), while the Norse were never opposed to mingling with local populations wherever they went (Crawford, 1987: 47), in the Western Isles, and the Isles of Man they may have been a more aristocratic class of Norsemen based on the few agricultural implements found in graves (Crawford, 1987: 125). By the same token, the Norse in Orkney were dominated by earls and chieftains who in turn controlled the Norse settlers (Crawford, 1987: 126-127):

"The Orkneys were dominated by the earls and their following chieftains indeed who controlled the body of the Norse settlers. But the bulk of the settlers took over the rich farming lands of the Pictish populations which provided them with sufficient resources (and slave labour) to allow them to live primarily as landowners." (ibid.)

In both regions, the Norse appear in a position of social superiority justifying the presence of fine objects and jewellery in graves. One might suggest, that when the secondary migrations took place from the British Isles towards Iceland in the late 9th century, the people who were leaving may have been the less affluent Norse settlers from the British Isles who
departed in order to seek fortune, power, and land in a new less competitive environment (K.P. Smith, personal communication, 2001).

Taking into account the quality of workmanship and materials used in jewellery making and combining them together, it is possible to arrive at some general insights into status behaviour during the landnám period. From the abundance of copper alloy jewellery it might be possible to suggest on one hand, that graves with items of silver may have been perceived as higher status burials compared to the rest. But on the other hand, if the norm was to have gilded copper alloy jewellery because silver was rare, and to add to this jewellery of poor craftsmanship, what did people use to distinguish themselves socially through the jewellery they wore? I think that the discussion on status and jewellery in Chapter 6 answers this question adequately, and it is more than probable that people may have resorted to “types” of jewellery and design to express social status. In this context it is probable that pieces of jewellery took on a meaning of their own, so that the materials and craftsmanship of the oval brooch was not important, but it was what the oval brooch signified to society which was of relevance.

**Jewellery and techniques**

In Chapter 4, the Methodology chapter, I explained and itemised the contents of the metal-working section of the database, which refers to techniques most frequently encountered in the Icelandic corpus. From 253 items of jewellery, 111 pieces of jewellery were made by casting. This is by far the largest category, when compared to 34 items made of blown glass, 28 for which the technique is unknown, 34 forged (wrought metal-work) with another 46 belonging to a miscellaneous category including other wrought metal techniques such as filigree, punching, braided wire etc.
Table 24: Distribution of techniques used in the Icelandic corpus.

Casting being the most representative category in this corpus led me to consider some technical questions relating to this activity. As part of this dissertation I conducted experimental trials of Viking period casting methods and addressed the actual technological implications of casting jewellery in Iceland. One of the aims behind much of technological research of this dissertation was to settle an ongoing debate in Icelandic archaeology: whether or not jewellery was produced in the new colony, and were these techniques readily accessible? I have included a discussion and the results from these experimental trials in Appendix A and attempted in Part 2 of this chapter to review the archaeological evidence for the working of non-ferrous metals in Iceland and thus, incorporate these various sources into a broader discussion of local jewellery production in Iceland.

Cast jewellery in Iceland is present. Furthermore the archaeological evidence in Scandinavia offers a substantial comparative data of what kind of debris would have been left behind from this sort of activity. However, debris on the scale of the Scandinavian finds is absent in Iceland pointing towards the fact that most of the jewellery found its way via trade and as
imports. Yet the application of the casting techniques, described in Appendix A is feasible. The reader will note from these experimental trials that there is nothing particularly outstanding or complex about these techniques, nor anything to support that the process described in the experimental research could not have been executed locally. Despite this, it would seem that the bulk of the material from the corpus was imported.

The main concern for local Icelandic craftsmen would have been acquiring adequate materials with which to make moulds and crucibles. He would have required clay, beeswax, sand, peat or manure and non-ferrous metals. Most of these materials would have been readily available in the new colony, to the exception of clay as well as the ore. Bronze or other non-ferrous metals would have been imported from Scandinavia, either in the form of old jewellery or as raw material as no local ore deposits exist in Iceland (Smith and Hayeur Smith, 2001:18). Clay poses a slightly greater problem and is a vital ingredient in the making of moulds as well as crucibles.

Clay is formed over a long period of time, and Iceland being a young country geologically does not offer adequate clays to be used in pottery making or mould making (Sveinbjarnardóttir, 1996: 85). Moulds require fine and good quality clays in order to pick the details depicted in the jewellery. Attempts have been made more recently to make pottery from a type of clay found in association with hot springs and volcanoes, and undoubtedly these same attempts were carried out during the Viking period (ibid.). It is therefore, possible to assume that clay may have been imported during the early years of settlement though on a limited scale. Jewellery making, could therefore, have been produced locally and may have consisted of a combination of repair work and the making of simple items of jewellery, while the bulk of the material was imported into Iceland.
In the following section, I propose to look at the archaeological evidence relating to the question of non-ferrous metal production in Iceland. The intent is to verify what material was found relating to non-ferrous metal production, and how metal-workers might have dealt with making jewellery on this island. The reader will note that workshop debris is present though limited. Furthermore, the data presented below is an attempt to reconsider older data-sets. Future archaeological research may add to this compilation and offer a more in depth insight into the scale of non-ferrous metal-work and jewellery production in *landnám* Iceland.
Part 2: Non-ferrous metal-working in early Iceland: review of older data-sets

Based on the trials conducted on oval brooch mould-making techniques described in the Appendix it is possible to argue that these methods were sufficiently straightforward for them to have been practised in the *landnám* period of Iceland. Casting of non-ferrous metals in general, would have been feasible as well as the array of other decorative techniques involving wrought metal-work. But to what extent were non-ferrous metals actually worked during the *landnám* period?

We have already established that the archaeological data is non-existent relating to any form of mass production of jewellery, specialised workshops, and nothing comparable to the Scandinavian archaeological record has ever been found in Iceland. Yet some data does exist testifying to non-ferrous metal-work, and can be identified by the presence of certain artefact types: such as crucibles, or crucible fragments, scrap metal, tools, discarded castings, object moulds or ingot moulds, as well as tools associated with the metal refining processes (Mainman and Rogers, 2000: 2475; Bayley 1992). In Iceland two settlement sites offer one of several of these categories of artefacts, and one grave offers possible evidence of a jeweller. Furthermore, certain items of jewellery display particularities indicating that they could have been the result of local production.

**Literature**

In Chapter 2 of this thesis, the reader will recall the research conducted on the question of silversmithing, and the presence of smiths in earlier Iceland. To name a few, Óðardóttir (1931, 1943), Björnsson (1954), Eldjárn (1974, 1956).
In his compilation of Viking burials, *Kuml og Haugfél* (1956) Eldjárn made reference to tools. He observed that in comparison with Norway, or Denmark, smith's tools in graves were uncommon in Iceland (Eldjárn, 1956: 243). Three graves were identified with metal-working tools: Galtalækur contained a small grip (Kt 15); Berufjörður, a small anvil (KT 41), and Granagil, an awl (KT 123) (ibid.). This author added that he did not believe that metalworking did not occur in Iceland, and that certain pieces displayed elements quite uncharacteristic of material found elsewhere in the Viking world. Such pieces include a sword chape from Ljárskogar, and two trefoil brooches from Hóll and Hafurbarnarstaðir (Eldjárn, 1956: 254). We know today that both trefoil brooches mentioned by Eldjárn (1956), are of Insular in origin and similar to pieces found at Jarlshof and Britain (Paterson, 1997).

Not mentioned in Chapter 2, but discussed in Chapter 1, is the work of Smith (1995), who offered some discussion on the production of iron and non-ferrous metals in Iceland with reference to environmental issues and the deforestation of Iceland by early settlers. Based on early Icelandic burials and settlements, Smith noted that the earliest sites had higher ratios of locally produced goods as opposed to later period sites which displayed larger quantities of imported goods (Smith, 1995: 329). According to this author, this could be an illustration of poorly developed long distance exchange networks in the early Icelandic colonies, thus forcing people to produce locally made tools and goods (ibid.).

**Archaeological evidence for non-ferrous metal-work in Viking Age Iceland, Reykjavík**

In 1988, Else Nordahl published a report on the excavations at Reykjavík. According to the *Islendingabók* as well as the *Landnámabók*, Reykjavík is thought to be the site where the first Norwegian, Ingólfur Arnarson settled.
The excavated site offers evidence of settlement beginning with the *landnám* period and ending with remains of factories dated to the 18th century. Of interest to the present discussion on non-ferrous metal-work in Iceland, is the older smithy discovered on this site.

The oldest buildings of this site are the older smithy and the longhouse dated to mid 10th century (Nordahl, 1988: 55). Ferrous metals were worked in the Reykjavik smithy though evidence for non-ferrous metal-work is also apparent by the presence of artefacts, such as those listed above. A crucible (no. 500), was found on a stone chip near the forge, while a sherd of the same crucible (no. 448) was said to have been located in the southern part of the longhouse (Nordahl, 1988: 59). Furthermore, an ingot mould (no. 202) was recovered “between a sewer in the overlying house and the inner face of the south western face of the smithy” (Nordahl, 1988: 59). Additional artefacts were found associated with the workshop, while others were found elsewhere on the site, also testifying to non-ferrous metal production.

Perhaps more intriguing, is a fragmentary ring from a ringed pin, found in the north-eastern section of the longhouse under the stone structure (Nordahl, 1988: 76). Also relating to possible non-ferrous metal-work, are two punches used to create motifs or holes in jewellery making (no. 401 and 445), as well as a copper alloy tag decorated with a ring and dot design (no. 435) (Nordahl, 1988: 71). This tag resembles a pendant rather than tag, and could have been locally produced given the evidence below.

From my own analysis of the crucible, ingot mould, and ring I concluded much the same as the author: that non-ferrous metals were being worked on the Reykjavik site alongside iron. Crucibles are used in non-ferrous metal-work to hold metals, which are being melted down either for casting or alloying. By placing the molten metal in a ceramic container, the metal is protected from contamination while allowing it to be transported (Bayley, 1992: 754). The two crucible fragments found at Reykjavik have since
been joined together (Plates 5,6). The crucible is, according to my own measurements, 470mm deep, with a diameter of 430mm. The thickness of the clay varies between 110mm and 112mm. The shape of the crucible is thimble shaped, said to be the most common form in Scandinavia (Bayley, 1992: 767). It corresponds to type A crucibles found at Coppergate, a type believed to be used largely for gold and copper alloy. This information is based on identifiable metal residue detected on Coppergate crucibles (Bayley, 1992: 763). The outer surface of the Reykjavík crucible is highly vitrified, which occurs when an outer layer of less refractory clay is added to the surface (Bayley, 1992: 755), while the interior shows no evidence of vitrification.
Plate 5: Top view of the Reykjavik crucible (no.500-448) (Photo: Helgi Bragason FSt).
Plate 6: Reykjavík crucible (no. 500-448) (4.8cm x 4.5cm) (Photo Helgi Bragason, FSI).
The ingot mould is made of basalt, a local Icelandic stone (Plate 7). Ingots are also specific to the working of non-ferrous metals. They are open moulds, elongated in shape and allow the metals to be formed into rods or bars. From a rod shape, the metal can then be transformed into wire, plate, or left as such as a mechanism for storing precious metals. They were frequently made of steatite or re-used bricks and tiles (Bayley, 1992: 767). No. 202 from Reykjavík was carved out of an oval shaped stone. The ingot cavity itself measures 102mm long x14mm wide 14mm deep, and is V-shaped. According to Bayley (1992), and positive analytical results obtained from other sites, ingot moulds were used primarily for silver (Bayley, 1992: 768). This is in keeping with the numerous silver ingots found in silver hoards from all over the Viking world.
Plate 7: Reykjavik ingot mould made from local Icelandic stone (Photo: Helgi Bragason, FSI).
The ring (695), is a flawed cast, and consequently, was never used (Plates 8, 9). This ring corresponds to Fanning's (1994), plain ringed category, which can either be circular or lozenge shaped such as this one. The extremities of these rings types were either hinged or pivoted enabling the ring to swivel freely, while keeping it from moving sideways through the pin head (Fanning, 1994: 7). It is tempting to speculate that the pin portion may have been of the polyhedral head variant, one of the more popular types of ringed pins found in the North Atlantic region.

The ring is copper alloy, 26 mm in diameter, 4mm thick, and weighs 1.9 gms. At one extremity of the ring, the flow of metal stopped, while the other end has a thin rod protruding, where the metal continued to flow unevenly. The ring has several holes or casting flaws, which are the result of oxygen entering the mould. This suggests that the casting was incomplete and discarded as scrap metal. Nordahl concluded that this ring was locally produced, and is evidence that items other than iron were being produced in Iceland (Nordahl, 1988: 80). It is interesting to note that ringed pins in general in the North Atlantic are assumed to have all come from Ireland or the British Isles. However, the ring from Reykjavik offers a different scenario: perhaps some of the ringed pins and fragments (including this one) known from Iceland, were locally made. Some of the plainer variants requiring less skill of craftsmanship other than general knowledge of casting could have been produced in Iceland. For example, it might be possible to suggest, taking this argument further, that the single ringed pin found in Newfoundland at l'Anse-aux-Meadows may have been of local Icelandic production.

Local adaptations and manufacture of jewellery did occur elsewhere in the North Atlantic, from Freswick Links in Caithness a ringed pin was recovered with the ring and pin portions made of different alloys. It would seem that
the ring portion may have been a local adaptation and repair to this item of jewellery (C. Batey, personal communication, 2001), (Batey, 1987:466, plate 23 A/B).

Plate 8: No. 695 from Reykjavik, ring portion from a ringed pin, displaying casting flaws (Photo: Helgi Bragason, FSI).
Plate 9: Other angle of the same ring (no.695) from Reykjavik displaying casting flaws (Photo: Helgi Bragason, FSI).
From the evidence found at Reykjavik it is possible to conclude that metals other than iron were being worked as part of the same workshop. One could speculate whether it was by the same craftsmen or whether Iceland had specialised jewellers and non-ferrous metal-workers sharing the same workspace with ironworkers. Based on finds from Ribe, York, as well as tool assemblages such as the Mastermyr find from Gotland, and the Tjele collection from Denmark, it appears that smiths in certain areas were versed in working both ferrous and non-ferrous metal at the same time.

Herjolfsdalur, Vestmannaeyr

The site of Herjolfsdalur, Heimaey in the Westman Islands also offers evidence for the working of non-ferrous metals in the smithy. The site was excavated by Hermans-Auðardóttir, and the report was produced as part of a PhD thesis. It is worth pointing out that this author offered one of the more controversial theories about the settlement of Iceland and concluded that the site of Herjolfsdalur was occupied during the Merovingian period as well as later during the Viking Age in the 10th century (Hermans-Auðardóttir, 1991:4).  

Relating to the working of non-ferrous metals, a crucible sherd was found at Herjolsdalur (Hermans Auðardóttir, 1989; Smith and Hayeur Smith, 2001: 19). It belonged, according the author, to the later occupation of the site: the Viking period. The sherd itself was analysed by Birgitta Hulthén, who concluded that it was made of ceramic with a thickness of 83-94 mm (Hulthén, 1989: 175). The sherd fragment was subjected to thermal analysis indicating that it had been exposed to temperatures ranging between 1000 and 1200 °C (Hulthén, 1989:175; Smith and Hayeur Smith, 20001: 19). It

---

57 See chapter 1, p.30-32.
should be pointed out that these temperatures are in keeping with melting temperatures for gold (1063°), copper (1083°), silver (960°), while the melting point of copper alloys range between 1035°- 1225° (Untracht, 1982:52; Bayley, 1992:754).

Interesting, though perhaps not directly relevant to the working of non-ferrous metals at Herjólfsdalur, was the discovery of a copper alloy needle case outside the door in the east wall of Structure I, and a copper alloy ringed pin was found outside the western wall of Structure I (Hermans- Auðardottir, 1989:32, Smith and Hayeur Smith, 2001:19). Furthermore, Structure I offered the largest concentration of iron objects as well, suggesting that both metals were being worked on this site (Hermans- Auðadottir, 1989:30; Smith and Hayeur Smith, 2001:20).

**Hvítárholt**

At the site of Hvítárholt, there is mention of a copper alloy casting sprue found on the site of Hvítárholt in House 8 (Magnússon, 1973:71; Smith and Hayeur Smith, 2001:20). It is said to measure 4.4 cm in length and 0.3 cm thick suggesting as well that non-ferrous metal production was occurring on this site.

**Granastaðir**

Granastaðir is yet another site to offer evidence of non-ferrous metal production. Like the other sites reviewed here, Granastaðir's evidence is limited and consists of a crucible fragment (no. 282) measuring 1.55x 2.15 cm and found in a dump accumulated over a floor that was thought to be formerly a pigsty (Structure 15) (Einarsson, 1995:92). The crucible is described as having a glazed and sintered surface (ibid.). However, unlike
the Reykjavík crucible the one from Granastaðir is said to be made of lava. This poses an interesting alternative to the Icelandic clay problem and suggests that in the absence of good clays, craftsmen sought out other materials equally suited to the task.

**Hofstaðir**

Last but not least at the site of Hofstaðir in Myvantsveit, a crucible was recently recovered (A. Friðriksson, personal communication, 2001) once again testifying to limited non-ferrous metal production similar to that of Reykjavík, Herjólfshlíð, Hvítárvík, and Granastaðir. The map below offers an overview of non-ferrous metal production and the distribution of these sites across Iceland.

![Figure 79: Distribution of non-ferrous metal production across Iceland (Smith and Hayeur Smith, 2001).](image)
Possible evidence for jewellers in early Iceland

A Viking period grave from Silastaðir in Eiðfjarðarsýsla, north-eastern Iceland was discovered in 1947, containing the remains of an individual identified as a middle age male. This grave, along with three others, made up a small cemetery located on present-day agricultural land. They were discovered accidentally by the farmer who disturbed the grave whilst tilling the soil.

No attention has been given to this specific burial from Silastaðir since Eldjarn's analysis in 1956, and in relation to other Viking period burials of Iceland as well as those adjacent to it, this one does not display, at first glance, particularities different from other pre-Christian burials from this region. The examination of the grave goods at the National Museum of Iceland revealed something of the occupation of this individual. Following the analysis it could be suggested that the Silastaðir man might have been a smith involved in some form of fine metalworking.

Description of the grave and its contents

The grave of interest to the present discussion was labelled 'grave 2' by Kristján Eldjárn (Eldjárn, 1956: 138). Grave 2 contained the skeleton of a middle-aged male, lying on his right side. The body was in a flexed position, the left arm folded and resting on its abdomen. The head of the body was placed in the south-western corner of the grave. A considerable amount of wood was found around the body possibly indicating that the dead had been placed in a coffin or wooden container (ibid.). The sexing of this individual was further confirmed by Gestdóttir (1998).

The grave goods included: a spear; at the waist, clustered together: a knife, (with the remains of a wooden handle and leather sheath), a whetstone, a
piece of jasper, a fire iron, 2 fragments of cufic coins (one of which had peck marks made by a knife), a piece of silver thread, a small unidentified iron point, and fragments of a chalky substance. Kristjan Eldjárn was of the opinion that the objects found in close proximity to the knife were probably contained within a little leather pouch. Around the neck was a black glass bead of milifiori type mounted on an iron loop. A penannular brooch was found near the left thigh and was said to have end pieces shaped as animal heads (Eldjárn, 1956: 138-139.). This penannular brooch was also made of iron. It should be noted that unlike many Icelandic Viking burials this man was not buried with a horse, nor was he given the wide range of weaponry often found in male burials. His only weapon was a spear.

Of particular interest to the identification of a silversmith from the grave goods are artefacts:

13718 Jasper
13719 Fire starter
13722 Silver wire
13721 2 x silver foils
13723 Iron fragment
13724 Fragment of stone, described by Eldjárn as chalk, in Icelandic: Flís

Interpretation and discussion of the Silastaðir grave contents

The Jasper and fire starter are self-evident and are utilised for the making of fire. The iron fire starter is struck against a piece of flint or in this case the piece of jasper in order to produce a spark. Though not exclusive to the metal-working process, it is more than likely that a craftsman such as a jeweller would have such an item among his tool assemblage.
Beaded wire filigree and granulation

Filigree and granulation are said to be among the most ancient techniques in the art of metalworking (Duczko, 1985: 15). Both these techniques originated in the Eastern Mediterranean, Syria, Asia Minor and Greece and spread, subsequently, to Scandinavia via Italy and Northern Europe in the late pre Roman-Iron Age and Early Roman Iron Age (ibid.). During the Viking Age both techniques underwent a revival due to foreign influences coming from the Carolingian Empire (Duczko, 1985: 16).

According to Duczko, filigree uses small wires to produce a given design while with granulation, the design is achieved by using small granules (Duzcko, 1985: 15). Furthermore, with filigree, ornamental wires are often used to enhance the decorative effect and to delineate the border of the ornament. In his study of Viking Age filigree and granulation jewellery from Birka, Duczko identified two types of filigree ornamental wire from the Viking Period: beaded wire and twisted wire bordered by two strands of plain wire (Duczko, 1985: 17). Of interest to the present discussion is the beaded wire described by this author.

A careful examination of 13722 using a magnifying glass demonstrated that this fragment of silver wire was in fact a piece of beaded wire used in filigree work. Duczko determined two methods of constructing straight beaded wire such as this one: either by rolling a piece of silver wire with the help of a beading file (without being a true file this device consists of two wooden handles at either extremity and a fine strand of iron which has a chiselled groove on its underside. It is used on a wooden anvil, placed on the wire and rolled from side to side); or an organarium (which is a double mould in which the wire is pressed) (Duczko, 1985: 19-21). Without the use of a Scanning electron microscope it is difficult to determine which type of wire was found in
the Silastaðir grave assemblage, but what is certain is that this piece of wire is far from being insignificant, and can be attributed to fine metal-work. It is not inconceivable that if the Silastaðir man was a jeweller that he would have carried remaining or discarded pieces of beaded wire as part of his stock for future use.

**Silver coins**

13721 are two fragments of Cufic coins. They display the peck marks which are in keeping with a method used in the Viking Age to verify the quality of silver (Malmer, 1985). The economy for much of the Viking period in Scandinavia was a weight economy and not a monetary one, where silver coins as well as hack silver were used as weight metal (Hårdh, 1996: 16). Within this system, if a particular weight was required to purchase an item, the coins were cut up and weighed until the desired weight in silver was achieved. By the same token, silver coins were often melted down and "recycled" into silver jewellery or left intact and incorporated into pendants or other such pieces. One could suggest that silversmiths may have carried several of these coins if they were in need of raw material with which to work. With regards to the Silastaðir man, it is possible to suggest that these coins were part of his stock in trade.

**Jewellers tools**

13723 is by far the most convincing piece of evidence that the Silastaðir grave contained the remains of a jeweller or craftsman. Eldjárn described this particular artefact as an unidentified iron fragment (Eldjárn, 1956). At first glance this implement does indeed resemble a corroded lump of iron. However, having a practical knowledge of silversmithing, it immediately occurred to me that this implement was indeed more than just a piece of iron.
It reminded me of a chasing tool, possibly a jewellers punch. To quote Werner (1981):

"Metal objects have often been damaged by corrosion; corrosion layers can obscure the original contours and surfaces and details important for interpretation. Groups of objects such as tools demand specific knowledge of craftsmanship and working for their identification" (Werner, 1981: 41).

Punches are a category of chasing tool. They are used with a hammer and are a useful implement to engrave a repeated design upon metal (Werner, 1981: 43). A variety of punches exist, depending on the type of motif required. The part of the punch which is struck by the hammer is referred to as the striking face and following repeated hammering will accumulate a "beard" (ibid.). The end bearing the design, and thus the part of the punch that rests upon the metal, is called the pein (ibid.). According to Werner, it can be tricky to distinguish between a punch and a chisel if the pein is corroded. One must therefore, rely on the striking face, on its dimensions as well as the presence of a "beard" (Werner, 1981: 43)

Unfortunately, the Silastaðir implement is so severely corroded that adequate identification is difficult. In order to help with the identification, it was arranged to have a 13723 X-radiographed (Fig 81). With X-radiography, the artefact is illustrated with its superficial appearance, that is corrosion inclusive. What appears to be light coloured on the image is rust, the darker areas are the outline of the object itself. The pein is clearly, even through X-radiography, too damaged for adequate identification and one cannot distinguish between a chasing tool with a chisel end, a dot punch or simply what Werner (1981) refers to as a pattern punch, though it appears to be one of the three. Furthermore, the striking face is also in poor shape. One must therefore, rely on over all appearance and the dimensions of the striking face.
The striking face does not display a flat surface, but a jagged edge indicating that it may have been broken. Its width is 0.9mm (from the X-radiograph). The presence or absence of a beard is impossible to determine due to poor preservation. The length of 13723 is 35 mm long. No. 13723 appears surprisingly small for a chasing tool. Yet, according to Werner, many chasing tools were reground over and over again for reuse (Werner, 1981: 42). For this reason, many punches are very short (ibid.). Furthermore, tools that are discarded can be saved, and hardened or filed down and recycled into another tool (ibid.).

Figure 80: Punch tools from Helgö (Werner, 1981: 44-45)

In terms of shape and dimensions of the implement, 13723 resembles material from Helgö notably nos. 12871, 9716 and particularly 11401 (Werner, 1981: 44-45).

Dimensions:

<table>
<thead>
<tr>
<th>Helgö:</th>
<th>L</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>12871</td>
<td>38</td>
<td>4</td>
</tr>
<tr>
<td>9716</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>11401</td>
<td>42</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silastaðir</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13723</td>
<td>35</td>
<td>9</td>
</tr>
</tbody>
</table>

348
To check my interpretation of 13723, the X-radiographs were compared to modern punches. The pein end of certain modern punches fit exactly the dimensions of the Silastaðir punch as well as the overall shape depicted in the X-radiograph. When the X-radiograph was presented the Head of the Department of Silversmithing of the Glasgow School of Art, he too agreed with my interpretation, that this iron fragment may have been a jewellers tool. (R. Millar personal communication, 2000).

Though not certain, it is tempting to consider no. 13723 as a chasing tool of some sort and like the material discussed thus far, as part of the stock and trade of a fine metal-worker. What may have been important in the burial assemblage, was not to provide the full tool chest of a jeweller, but rather insert token items in the burial each one symbolising something of their owner's occupation during life.

**Flís**

The final item found in conjunction with the artefacts above is no. 13724, described by Eldjárn as a piece of chalk or Flís, in Icelandic. According to
recent analyses conducted by Karl Grönvold from the Nordic Volcanological Institute in Iceland, the fragment of "fils" as described by Eldjarn, is definitely a material of organic nature, most likely wax (K. Grönval, personal communication, 2003). My own visual analysis confirms these finds as the substance is far too greasy to be chalk.

Beeswax was a substance used extensively in metal-work during the Viking period. It was used in the lost wax and piece mould casting processes. Items that were to be fabricated by casting were frequently modelled in beeswax (as discussed in the experimental trials in the Appendix). A mould was then constructed around the wax model, heated, and in the process the wax would melt leaving its imprint in the clay mould. Molten metal was then poured inside the mould, cooled and broken open to extract the object.

**Grave 2 from Silastaðir**

The earlier settlers of Iceland were not Christian for the most part, but followers of the Old Norse religion. Death was perceived as an altered existence where the dead continued to live a separate, parallel life accompanied by his/her tools, weapons, animals and belongings (Boyer, 1994: 66). It was, therefore, vital to provide with the dead sufficient grave goods for him/her to be content in the other world (ibid.). Horses and dogs were common offerings, as was food. By the same token it was necessary in the burial to display something of the individuals status and occupation in society, as well as the rank of his kin group. Some archaeologist have argued that the contents of the burials have as much to do with the status of the deceased as they do with the living (Parker Pearson, 1999:23)

Jewellers and metal-workers are considered in many societies as particular beings, endowed with magical powers either to be feared or venerated (Eliade, 1956). Therefore, it would be important, when preparing the burial of
such a craftsmen, to illustrate something of his occupation during life. As it has been suggested, this may not have been done in a very elaborate or blatant way, but perhaps a few token items sufficed to say to the world of the living and the dead, who this man was.

While discussing the contents of grave 2 from Silastaðir another point worth considering, are the other items of jewellery buried with this man. He possessed two pieces of jewellery both of which were made of iron, and possibly made locally, though the issue of locally made jewellery will be reviewed below. Furthermore, of all Icelandic graves containing jewellery, which have formed a part of this dissertation, this is the only grave containing iron jewellery. It is an interesting coincidence that grave 2 from Silastaðir may contain the remains of a metal-worker and that the jewellery he wore was iron, while no other Icelandic graves contain iron jewellery. Is it possible that iron jewellery was somehow filled a symbolic significance? Was iron jewellery perhaps reserved to those who were versed in the skills of metalworking and therefore, another clue that this man was indeed a metal-worker?

Locally made jewellery in the Icelandic corpus, and evidence from the museum analysis.

Other evidence for the working of non-ferrous metals in Iceland as well as local jewellery production, comes from an analysis of the jewellery itself, most of which is from a burial context. Stray finds also constitute a part of this data, though stray finds are on the whole, probably derived from eroded graves which were not properly recorded, or for which the contexts have been lost over time.
I have, therefore, chosen to group this data into two categories: burial jewellery and stray find jewellery. Within both categories it is possible to identify two types of local production: 1. Evidence for possible local jewellery repair; 2. Possible local production based on, uniqueness in design, poor craftsmanship (due to the lack of adequate materials and the lack of craft specialisation such as encountered in urban/trade centres of Scandinavia), or a certain degree of technical simplicity of the design. Simply made jewellery will not require a high level of technical skill making it more accessible and feasible in a new colony.

Table 25: Stray finds

<table>
<thead>
<tr>
<th>Repaired jewellery: stray finds</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dalasýsla no.190 Trefoil brooch: Made of copper alloy, cast. Repair: on the back of the brooch there is evidence that the brooch was broken in three pieces and was soldered back together. The crack is still visible and there are traces of tin/lead/silver solder in back side. Brooch is very worn and it appears as though it may have broken in three and was repaired to be transformed into something else. There is no information, in the museum ledgers, documenting post-excavation repair of the piece or noticing that it had been repaired when registered by Sigurður Vigfússon in 1864. (Fig. 83)</td>
</tr>
<tr>
<td>• Hóll, A 10696, trefoil brooch: Copper alloy brooch thought to come from the British Isles according to Paterson (1997). Repair and modification visible on the back of the brooch. The brooch was probably transformed from a brooch to a mount, as the pin attachment and hooks were filed off the back. The filing scratches are still apparent. (Fig. 82)</td>
</tr>
<tr>
<td>Locally made jewellery: based on original design, poor craftsmanship, simple design, or a combination of the above.</td>
</tr>
<tr>
<td>• Fossi, no 6077: Thor’s hammer: Silver, cast. Unique design with no other known example in the Viking world. It has been suggested that it is a combination of a Thor’s hammer and Christian cross. The workmanship on this piece is very rough indicating that the craftsman was not a skilled metal-worker and possibly not even a jeweller but had knowledge of simple casting techniques. Careful examination indicates that the craftsman left scratches on the original wax matrix, and did not</td>
</tr>
</tbody>
</table>
bother to polish the piece before casting. Furthermore, the central cross is awkwardly rendered and is off-centred also indicating that the craftsman may not have been skilled at carving wax, and ran the risk of destroying the preliminary model if he had tried to rectify the central cross design. (Plate 10)

- **Ljárskogar no.5072 sword chape:**
  Cast copper alloy. Very unique design no other known example in the Viking world, believed to be of local fabrication according to Kristján Eldjárn (Eldjárni, 1956:254). (Fig. 84)

- **Vogur í Mýrar no.13 ring.**
  Copper alloy ring, cast. This is evidently a man's ring due to its large size and is a failed attempt to replicate similar rings made of twisted forged gold frequently found in Viking hoards. Similar rings made of gold have been found on the Isles of Skye, as well as in Stennes in Orkney (Graham-Campbell, 1995: 228-251), and in Greenland from Garðar (D11157). This particular Icelandic example, rather than having been forged from gold was cast from copper alloy and displays many casting flaws where oxygen entered the mould. (Fig.85)

- **Hós Mý96 Thor’s hammer.**
  Iron example not unlike similar examples found in central Sweden as well as Russia (Novikova, 1992; Gräslund,1980: 54). Was found in midden G at Höfstaðir in Mývatnsveit. It is wrought iron, was probably intended as a pendant/amulet and could easily have been locally made in Iceland. (Fig.86)

![Figure 82: No. 10696 from Höll (4.6cm x 4.8cm) with file marks on back](image-url)
Figure 83: Brooch 190 from Dalasýsla front and back view (4.1cm x 4.9cm). On the back view the cracks are apparent. The green indicates where solder of some sort was applied (Illustrations: M. Hayeur Smith).

Figure 84: Sword chape from Ljárskogar (No. 5072) (8.55cm x 4.1 cm), a unique design not encountered elsewhere in the Viking world (Illustration: M. Hayeur Smith).
Figure 85: Copper alloy ring from Vögur i Myrar (no. 13) (3cm x 3cm) displaying casting flaws (Illustration: M. Hayeur Smith).

Figure 86: Iron Thor's hammer from Hofstaðir (3.8cm x 1.9cm), of possible local manufacture (Illustration: M. Hayeur Smith).
Plate 10: Thor’s hammer cross from Fossi. Careful examination has revealed that preliminary wax model was awkwardly rendered (Eldjárni and Friðriksson, 2000: 384).
Table 26: Graves.

**Repaired jewellery from graves.**

- **Ytra-Garðshorn no. 1958:89**
- **Silastaðir no. 13725.**

Both these artefacts are beads that have been adorned with wire, transforming them into pendants, buttons or clothing ornaments. The Ytra-Garðshorn bead is made of amber and was fastened with a piece of twisted silver wire; while the Silastaðir bead was mounted on a piece of iron. Both are simple adjustments/repairs to the beads giving them more value as pieces of jewellery. It is interesting to point out that the Silastaðir grave may have contained the remains of a possible fine metal-worker, and yet both items of jewellery he wore were made of iron. Does this suggest that non-ferrous metals were scarce? Or that he confirms the general pattern of metal-workers being versatile in both skills of ferrous and non-ferrous work? (Figs. 87)

- **Skógar í Flókadal no. 5030a/b oval brooches.**

Copper alloy, cast, believed to be the oldest pair of brooches from Iceland, decorated with Osberg style motifs. These brooches are very worn and were not new when placed in the grave. However, brooch a, the more damaged of the two, has a small very corroded iron rivet apparent on the under-side of the brooch, on the right side of the pin hook. These brooches are single shelled brooches and the bosses are cast directly into the shell. There is no need for adding a rivet to the inside of the brooch (as was the case with double shelled oval brooches and served the purpose of keeping the top shell fastened to the bottom one) unless it was for repair, and was done when the brooch was already worn. (Fig. 67)
Locally made jewellery: based on original design, poor craftsmanship, simple design, or a combination of the above.

- Daðastaðir no.15691 (6) bracelet
- Skansinn Vimey. 01.1992 bracelet

Both bracelets are made of wrought copper alloy, and twisted together. They are almost identical in design except that the Skansinn bracelet is made of two different strands of metal possible copper alloy and silver. This type of bracelet is vaguely similar to the type of twisted bracelets one encounters in Viking silver hoards, though the hoard bracelets are thicker in the centre and generally taper off to the ends, while these two examples are of even thickness (requiring less technical skill), and are very thin: Daðastaðir: 3mm thick and Skansinn: 4 mm thick. (Fig. 88)

- Silastaðir no.13726 Penannular brooch

Iron, either cast or wrought iron. A type of brooch known from Norway. They were popular, during the first half of the 10th century, and were eventually cast out of bronze or iron and then plated in a white metal so as to imitate silver examples (Graham-Campbell, 1984: 33). It is said that the style is common enough in Scandinavia, Eldjárn argued that this one was adorned with animal head terminals (Eldjárn, 1956: 314) which I failed to recognised due to the high degree of corrosion. As is, with an absence of animal headed terminals, along with the possibility that the Silastaðir did indeed contain the remains of a metal-work there is not reason to assume that he could not have made this item of jewellery for himself. (Fig. 89)

- Vatnsdalur, Patreksfjörður 1964:122 Thor’s hammer

Silver, made from wrought metal. Very simple design, not unique to Iceland. This is a very small amulet 3.5cm long x1.15 cm wide x 0.1mm thick. Its fabrication required the simplest of metalworking skills, if was cut from sheet metal, no heat or solder applied. The loop at the top of the pendant was tapered and bent in order to create a loop. The base of the hammer is not completely symmetrical, one side is smaller than the other indicating that it was not made with a great deal of precision and care. (Fig. 90)
Figure 87: Bead 1325 from Silasstaðir (2.8cm x 1.9cm) made of glass and mounted on an iron ring (Illustration: M. Hayeur Smith).

Figure 88: Daðastaðir bracelet (no 15691(6)) (8.2cm x 6.6cm) and the Skansinn example (01.1992) (7.2cm x 7.6cm) (Illustrations: M. Hayeur Smith).
Figure 89: Penannular brooch from Silastaðir (no.13726) (15.6cm x 8.4cm) (Illustration M. Hayeur Smith).

Figure 90: Thor’s hammer from Vatnsdalur (1964:122) (3.5cm x 1.15cm) (Illustration: M. Hayeur Smith).

While the pieces here are just a few of the possible locally made items of jewellery from Iceland, there are undoubtedly others that have gone undetected. Furthermore, it is tempting to suggest that jewellery, such as bone pins, could have been a poor man’s alternative to the more elaborate copper alloy ringed pin. The numerous bone pins found in Iceland and
throughout the North Atlantic are items which could be have been locally made given the abundance of whale bone and walrus ivory in the North Atlantic.

There appears to be in the Icelandic corpus, items of possible local fabrication that were attempting to replicate styles of jewellery found in hoards. Hoard jewellery in general is made of silver, while the three Icelandic examples: no. 13 rings from Mýrar, as well as the two bracelets from Skansinn and Daðastaðir, are made of copper alloy or a combination of the two metals. It might be interesting to speculate as to why people were replicating hoard jewellery in less precious metal? Unless this type of jewellery, by its very design symbolised wealth, prosperity and status? One reason why jewellery in hoards is often found in the form of torques of various sizes is that this is the most efficient mechanism for storing metal (R. Millar, personal communication, 1999), while having the advantage of being easy to transport as worn jewellery. Therefore, by reproducing the more elaborate "hoard" torque-type jewellery one was aspiring to convey status and wealth, not unlike people today who opt for imitation items of famous brand names in the hope that no one will notice it is not the real thing!

Discussion and concluding remarks

Technical nature of Icelandic jewellery

The technical areas of the database have revealed something of the nature of Icelandic jewellery. It is possible to argue that most jewellery from Iceland whether imported or made locally was made of gilded copper alloy. The intent of the craftsmen may have been to duplicate in appearance jewellery from more affluent social groups while making elaborate jewellery accessible to a larger numbers. Furthermore, the quality of workmanship of jewellery
from the Icelandic corpus indicates that it was not of high quality and fell into an average to poor category. This in turn could testify to the social nature of the colonists who settled Iceland. In order to express status through jewellery it is possible, as was suggested in Chapter 6, that jewellery type and design came to symbolise notions of status and rank to their owners rather than by way of metals and craftsmanship.

Local jewellery production and clays

Most jewellery was made by casting, and was probably imported into Iceland. Based on the description in the experimental trials (see Appendix A), the casting techniques involved in casting copper alloy or silver jewellery are straightforward enough to have been practised in Iceland, and were probably carried out to a limited extent. This is apparent in certain items of jewellery, which could have been locally made, such as the Thor’s hammer/cross from Fossi, and the sword chape from Ljárskógar as well as others listed in Part 2 of this chapter.

Oval brooch production and large scale non-ferrous metalworking appears to be absent from the archaeological record of Iceland. This may have something to do with the absence of decent clay in Iceland, a vital and necessary ingredient for the making of oval brooches and casting jewellery. As was mentioned, Iceland, due to its geological history, does not offer adequate clays to be used in ceramic production, and the only available material is a type of clay found in association with hot springs and volcanoes (Sveibjarnardóttir, 1996: 85). There is no evidence indicating that this clay was used for the making of moulds and crucibles, but what is certain is that moulds require high quality clay able to pick up the detail of the jewellery’s design. It is possible that when casting was carried out in Iceland the clays used in the process were imported. Furthermore, ores are missing from the
island and would have been imported as well (Smith and Hayeur Smith, 2001:18)

Crucibles present a different problem. Clays for crucibles need not be of the same quality as the fine clays used in casting as crucibles are simple recipients designed to contain metal. This suggests that other materials might have been employed, and it is possible that Iceland's geothermal clays would have been appropriate. Furthermore, as was demonstrated with the crucible of Granastaðir it is more than likely that early Icelandic craftsmen turned to other available materials for making crucibles, such as lava, in the absence of clay. Further research is required in this field. It would be of great benefit and interest to conduct similar experimental trials to the ones performed as part of this research on the geothermal clays by testing their efficiency for the making of moulds as well as crucibles. Other materials such as lava and soapstone could be evaluated, for mould and crucible making, as part of the same line of research.

Certain areas and regions of Iceland carry the name leir, clay. It is tempting to think that if the Norse settlers attributed clay to the name of a river, valley or region, such as leirá (clay river) or leirávellir (clay river fields), it is because these areas offered sources of good clay recognised by the early settlers. However, is also likely that the word leir used in place names made reference to areas rich in the geothermal clays described above, and that the settlers attributed these names to a clay-like substance which was familiar to them and resembled the clay they knew from their homelands (K.P. Smith, personal communication, 2001).

Non-ferrous metal production sites, and the versatile craftsman

Evidence for a limited industry of non-ferrous metal production is apparent on the sites of Reykjavik and Herjolfsdalur, Hvítárholt, Granastaðir, and more
recently, Hofstaðir. Non-ferrous metal production appears in combination with ferrous metal-work, indicating that both metals were being worked on the same sites (Smith and Hayeur Smith, 2001:20). This could be the result of a same craftsman working in both metals, or separate craftsmen sharing the same workshop. The former seems a more plausible explanation based on evidence from Scandinavian sites.

From the Mastermyr find in Sweden, we have an example of a possible craftsman who worked other metals alongside iron (Arwidsson and Berg, 1983:31). This is apparent in the certain tools found as part of this assemblage, such as small iron spatulas used in soldering copper, or small tripod stands used to support crucibles, as well as a stamp punch and lead stamping pad (ibid.). The same is true for the Tjele collection from Denmark where the eyebrow portion and nose-guard from a helmet were found along with pieces of scrap bronze as part of the stock-in-trade of what was formerly thought to be a blacksmith (Munksgaard, 1984:87). Coppergate also offered evidence for the working of both iron and non-ferrous metals on the same site. Lead and lead alloy metal-working debris was found across the tenements and not attributed to a specific area, such as iron production was. This indicates that the craftsmen themselves were skilled at both metals, or that specialised craftsmen were sharing the same working area (Mainman and Rogers, 2000:2479). This appears to be a pattern of metal-work of the Viking period. The specialisation of jewellers and blacksmiths may have been associated with urbanisation and the development of trade centres, while the norm may have been what the archaeological record seems to reveal that of versatile craftsmen.

The grave from Silastaðir also offers evidence for the same pattern of the “versatile” metal-worker. It is possible, based on the artefacts placed as grave goods, that this man was indeed a fine metal-worker while the jewellery he wore suggests that he may have known the art of blacksmithing.
On a larger scale across Iceland, non-ferrous metal production may have been limited to a small number of households throughout the country as suggested by the archaeology (Smith and Hayeur Smith, 2001:27). The analysis of individual items of jewellery in this chapter demonstrate that it may have consisted in the repair and making of small and simple items requiring basic techniques and few materials.

More archaeological research is needed in this area and will hopefully shed light on the role craftsmen played in the new colony as well as offer greater evidence relating to non-ferrous metal production in general, refining and defining the impact this craft had on early Iceland.
CONCLUSION

In the introductory chapter I argued that past scholarship invested more effort into understanding where people came from and when they arrived in Iceland, than trying to look at the process of colonisation and how people interacted with each other during this process (Smith, 1995: 319, Vésteinsson, 1998: 5). Vésteinsson (1998) added that it was time to start looking at older data-sets and to submit them to new ways of reasoning and new hypotheses (ibid.). Viking jewellery at large had been subjected to the same fate, and the literature review in this thesis demonstrated few studies exist relating to the social dynamics involved in the wearing and making of jewellery. While jewellery and mortuary display cannot provide concrete facts on the history of the settlement of Iceland, it is an existing data-set that has the potential for offering information about peoples' interactions during the process of colonisation. Furthermore, as a mortuary data-set it provides a valuable reflection of people's thoughts, concerns, and intentions at a given time.

Historical overview and the nature and chronological context of the corpus

The historical context of the settlement of Iceland, as presented in the introduction, revealed a particular situation of colonisation, free of native inhabitants giving the settlers free range and access to the territory where they landed. The settlement as we have seen occurred in more than one phase and each phase added to the former social dynamics established, making Icelandic society more and more complex over time. Due to the "blank slate" appearance of early Icelandic society some scholars have described it as a society in formation, void of hierarchical structures and
central leadership (Byock, 1988), an egalitarian society (Einarsson, 1995: 64) where independent self-sufficient households were the norm and everyone lived in relative harmony (Pálsson, 1999:68; Johannesson, 1974). Yet more recent archaeological work on Iceland's settlement patterns is suggesting otherwise. Research conducted by Smith and Parsons (1989), Smith (1995) as well as Vésteinsson (1998) and Smith and Hayeur Smith (2001) is demonstrating that on one hand, more complex modes of economic exchange prevailed across the island, invoking more interdependence between households; while on the other hand, far more complex political manoeuvring took place between the various factions of Icelandic society. This indicates that early Icelandic society was highly stratified and may have been characterised by conflicts between chieftains seeking greater power. Some of this is apparent in the lay out and distribution of the early settlement sites when contrasted with later ones (Smith, 1995. Vesteinsson, 2000).

The establishment of the Althing in 930 AD marked the beginning of the Icelandic Commonwealth and took place according to the Islendigabók “when all usable land was taken” (Byock, 2000: 92). The Althing empowered 36 chieftains from the various regions of Iceland to meet annually at the site of Pingvellir in order to resolve conflicts and establish new laws. Thus, while no overlords or kings ruled over Iceland the country was nonetheless in the hands of chieftains who competed among themselves for power and an attempt was made to provide some governmental structure (Byock, 2000: 92).

While the Commonwealth continued to exist until 1264 AD, the adoption of Christianity around 1000 AD led to a radical change in burial practices. Grave goods were no longer interred with the dead and archaeological evidence for adornment diminishes. The data set I have used, therefore, comes from the period of Iceland's settlement (879-930) and the first generations of the
Commonwealth (930-1000AD) during which burial practices followed pagan forms.

The corpus of Icelandic Viking Age jewellery that was recorded for this research can, therefore, be dated to the earlier years of settlement of Iceland: roughly 874 AD to the introduction of Christianity. It is more than likely that the full adoption of Christianity did not take place exactly at 1000 AD and some overlap between pagan and Christian worldviews must have occurred. The introduction to Christianity therefore, raises a series of questions regarding mortuary practices. Were early Christian graves really void of grave goods? Did mortuary practices change immediately and how soon were people burying their dead in consecrated grave yards?

Furthermore, the issue of conversion also encourages one to speculate on how peaceful this conversion actually was, as well as the types of passive or active resistance that may have taken place. For example, a passive form of resistance may have taken place through the use of material culture, and notably through the use of amulets placed in burials. Unfortunately the sample of amulets used in this corpus was too small and too poorly dated to arrive at any firm conclusions on this topic.

Geographical context of the corpus: distribution and origins

In this thesis I have examined jewellery that came from both burial or stray find contexts and could be dated (on the grounds of typological studies), to the 9th and 10th centuries. From a corpus of 253 items of jewellery from Iceland, jewellery from graves proved to be more significant than jewellery found as stray finds. Stray finds frequently without reliable archaeological context, were nonetheless, numerous. Most are object found in the 19th and early 20th centuries when excavation methods were not as rigorous as they are today.
Viking jewellery is found throughout Iceland, though certain regions produced more examples than others, such as Arnesýsla and Rangávallasýsla in the south-west, Eyjafjarðarsýsla in the north as well as Norður-Múlasýsla in the north-east. This distribution follows the pattern of burial clusters with few Viking burials known from other parts of Iceland. Extensive regional analyses of the material within Iceland were not carried out due to insufficient information on the provenance of some of the jewellery and incomplete archaeological records.

From an international perspective, the jewellery of this period was imported from throughout the Viking world, with the exception of a few possible locally made items. Stylistically most of the jewellery is Scandinavian in origin, although there are scattered examples from the Baltic and Eastern Viking routes, and from Continental Europe. However, Insular jewellery is a significant subordinate category in the Icelandic corpus and is different from the Insular material found in Norwegian graves. According to Blindheim (1978) Insular metal work from Norway tends to be more items of ecclesiastic origin (1978: 168-169). In contrast, Icelandic Insular jewellery includes bells, trefoil brooches, ringed pins, as well certain strap ends all of which were placed in mortuary contexts along with other more characteristic Scandinavian items. Based on an overview of Viking Age mortuary practises from Norway, Scotland and Ireland, it is evident that Icelandic burial practises fit into a characteristic pan-Nordic pattern defined both by the inclusion of grave goods in graves and also by the specific selection of grave goods chosen. However, slight differences stand out in the Icelandic setting. These include the presence of horses in graves, the inclusion of beads in the graves of all age and sex groups analysed, and this combination of Norse and certain types of Insular jewellery. These linked traits appear to be unique to the North Atlantic setting and the mixture of these objects in burials may be due to the interaction and exchange that occurred between the British Isles.
and the settlements of the North Atlantic at large. It might be possible to suggest that what is being depicted is a slightly different burial assemblage compared to that of mainland Scandinavia, so that one could speak of a distinct cultural amalgamation of material culture in the North Atlantic.

The corpus and its technical considerations.

Some of the research in this thesis has focused and explored the technological implications of the Icelandic corpus and has examined different technical considerations relevant to understanding Viking Age Icelandic jewellery: the materials it was made from, its quality of craftsmanship, and the techniques employed in jewellery making. Furthermore, I undertook technological experiments (carried out at the Glasgow School of Art) into Viking casting techniques in an effort to verify if such methods could have been employed in Iceland. To examine the topic further I also looked at several Icelandic sites where non-ferrous metals could have been exploited alongside other smithing activities such as blacksmithing and smelting.

Materials

It was revealed that the majority of items of Viking Age Icelandic jewellery, as in mainland Scandinavia, were made of bronze, frequently with a gold finish. Silver jewellery proved to be extremely rare, and gold was almost non-existent.

The dominance of gilded jewellery in Iceland, whether of good or poor quality, is an interesting phenomenon. In other parts of the Norse world, including Scotland silver jewellery is found occasionally in burial contexts. In Iceland it is rarer than elsewhere in the Norse world. Rare, too, are silver hoards, of which only four are recorded for the entire country. This may be a
reflection of the Icelandic colony as it was a poorer place than were the British Isles. It has been argued that many settlers arrived to Iceland via/or from the British Isles. Was this because of a lack of resources, land and opportunity there? The British Isles were a place with an established local population, Iceland, however, was not. Gold coloured jewellery by offering the appearance of real gold was a cheaper alternative to the elaborately made items from precious metals found in more the wealthy graves of the Viking Age.

Quality of craftsmanship

The nature of the materials used, coupled with the mediocre quality of craftsmanship (assessed by my own knowledge and experience as a jeweller), demonstrated that most Icelandic jewellery was not of extremely high quality, again this is in contrast with the Scottish corpus. This led me to question the use of these objects, and how they may have been considered in the social climate of early Iceland. In a society that was rapidly changing and where positions of power were being negotiated, many different meanings may have been attributed to these pieces of jewellery through the metals chosen and by their overall appearance. For example, as I suggested in chapter 6, formally “Scandinavian” objects regardless of their quality may have been given more weight due to their connection with the settlers’ land of origin than Insular items from the Norse colonies in the British Isles. This is apparent in the fact that old and worn heirlooms of overtly Scandinavian design were inserted into the graves, to my mind placed there as benchmarks and indicators of the deceased’s affiliation with Scandinavia. They may have been included as prized objects of affiliation in this new colonial setting.
Techniques

The last element considered in this section were the jewellery and metal working techniques employed in the making of Icelandic jewellery. It was demonstrated that the most widespread metal working technique used to make the jewellery found in Iceland was casting. However, to date no moulds or workshop debris on the scale of Scandinavian and British or Irish workshops have been uncovered in Iceland. Did they make jewellery in Iceland? The casting techniques explored in the Appendix clearly indicate that this knowledge was readily available, and among the settlers some must have been versed in the skills of the trade. However, there are no ore deposits in Iceland, and as was noted most of the pieces recorded in this corpus were imported from elsewhere. Nevertheless some jewellery testifies to repair work and certain items are simple enough to have been locally produced. Some of the sites presented in Chapter 7 such as Reykjavik, Herjófsdalur, Hvítárholt, Granastaðir and more recently Hofstaðir clearly indicate that non-ferrous metals were worked alongside iron production. It is therefore possible to suggest that non-ferrous metalworking did take place but on a relatively small scale. A significant hindrance to the Icelandic craftsman in making non-ferrous items of jewellery may have been the scarcity of good clays for making moulds and crucibles. Iceland, being a young country geologically, has little in terms of fine quality clays. The experimental trials described in Appendix A demonstrated that the quality of clay used in making moulds for jewellery casting is a fundamental component in the process and fine quality clays are required for making elaborate and detailed objects such as those found in Viking Age metal work.

Experimental trails

The experimental trials described in Appendix A explored the techniques involved in basic casting and mould making and demonstrated that past
scholarship had overlooked certain aspects of this technological process. Norse craftsmen chose simple and efficient approaches to casting by using piece moulds to retrieve the preliminary model (an existing brooch or brooch master), and used textile to insure an even thickness of metal of the final brooch. The use of existing brooches or brooch dies in the making of oval brooches is apparent by the reduced size of some of the final products. During casting shrinkage occurs which at the same time results in a loss of crispness in design, detail, and the integration of some elements into the brooch (bosses and wire-grooves). Their main goal, therefore, may have been one of efficiency.

Social significance of the corpus

Possibly the most pressing question of this thesis is what can jewellery add to our growing knowledge and comprehension of Icelandic society during this period?

I believe that the study of jewellery, dealing as it does with curated objects that may have been “heirloom” objects, may not be chronologically sensitive enough to add to the historical study of Iceland’s settlement, or to elucidate the waves and patterns of settlement. Information obtained from jewellery and the study of adornment is of a far more subtle nature touching upon less apparent areas of society (archaeologically) such as ideology, gender roles, expressions of status, power and its control, and spiritual or religious sentiment. Adornment is one of society’s and culture’s most potent expressions and serves as a basis for creating valuable metaphors that are used to communicate personal preferences as well as to assert issues of group belonging and group distinction. By considering jewellery as part of a system of adornment and communication, rather than focusing primarily on chronology or typology we may begin to decode Norse messages and
metaphors about society and individuals' roles within it, enriching our understanding of Viking Age Icelandic culture and dynamics.

As an element of adornment, jewellery appears to have been used actively to denote and signal gender roles and gender differences in Icelandic society. In death women were given more jewellery than men. Women's jewellery and appearance (including dress and other forms of adornment) on the whole tended to be more elaborate than that of men. This was apparent both in the archaeology and in the historical sources used in this research. This may be a reflection of a fundamental division of labour in Norse society, in which men engaged in outdoor activities involving hunting, fishing etc where greater movement was required. In contrast female dress may have been more revealing of women's lives as they engaged in household related chores. Viking Age and early Icelandic adornment, therefore, reflected formal divisions between men and women.

My examination of the jewellery suggests that gender roles were used to divide society into strict social groups with definite boundaries that were not to be broken. Deviance appears not to have been easily tolerated. The existence of multiple genders in Icelandic society is not apparent through burial analysis. Instead items of female adornment, such as oval brooches, appear to have emphasised stereotyped concepts of male and female gender by enhancing secondary female sexual characteristics (breasts) and visually reinforcing women's association with child rearing, lactation and procreation. Through these associations, oval brooches may have come to symbolise the status of married women.

Another interpretation for the apparently more elaborate appearance of women may have been related to status roles and status distinction established among men and women by Icelandic rules of inheritance and post-martial residence. If men's status was fixed from birth and clearly
established through families and their reputations, it is possible that they needed few visual status markers to establish their ranking among other men. Women's status in a patriarchal society such as Viking Age Iceland may have been more fluid, since women could alter their rank in society through the man they married and by marrying into families that were socially "higher" or lower than their own. Consequently woman may have had greater needs to signal their shifts of status by visually displaying them through adornment. The fact that women had many more types of jewellery at their disposal than men suggests that they may have needed to mark more levels of status in a fluid and mobile system of ranking that differed subtly from that of men (K.P. Smith, personal communication, 2002).

Yet how did the gender roles reviewed in this thesis influence Icelandic society itself? How did they tie into the waves of settlement; the appropriation of suitable agricultural land, the establishment of later farms dependant on greater estates, or the social stratification present in society? Women were present in the new colony and undoubtedly played an important role in the foundations of early Icelandic society. They may not have benefited from a public role, but as argued by Gräslund (1995) (for other regions of the Viking world), women played a significant role in the underlying structures and relationships that became established among the settlers. Jewellery, and more specifically female jewellery, may have served to enhance certain social distinctions: of free-born versus unfree, of earlier settlers versus later arrivals, of chieftains versus farmers. When slavery was slowly being abolished and slaves integrated into the social fabric as freedmen, jewellery may have marked those of Scandinavian decent versus those of Irish decent. Status expression through adornment, may have also been largely in the hands of women who used jewellery actively to state visually their own families' and their kindreds' associations with wealth and prestige. Status and social distinction were also reflected through materials and craftsmanship employed in making elements of adornment, including jewellery since the
choice of specific materials and quality of workmanship could affirm to what social strata they belonged.

Certain elements of Scandinavian jewellery may have acquired a different meaning from that which they had in the homeland, becoming symbols of personal or cultural identity and status in a society where status roles were being renegotiated and competition for power and resources was taking place. Icelandic society through time was becoming increasingly populated and socially more complex. Jewellery and its use in burial as presumably in life appears to have had an important role in helping to mark the positions of those who shaped the society during the period of rapid change. Oval brooches were placed in the burials of the more affluent females of this society and appear to have become emblems of cultural heritage and origin, stating that their owners were of the dominant Scandinavian community. Swords, of Scandinavian design, as well, fit into this social context of the negotiation of power, as they seem to have been associated with élite groups in Scandinavia and were additionally potent emblems and implements of power. They may have carried the same significance for men as oval brooches did among women symbolising a link with old Scandinavia, as well as a connection with one’s cultural Scandinavian heritage.

Unfortunately, little is known about the craftsmen and jewellers who made or repaired these social emblems. Jewellers and specialised tradesmen appear to have been present based on the evidence from the grave at Silastaðir, the contents of which were reviewed in Chapter 7. How these craftsmen were perceived in this social setting is unclear, although based on the evidence from sites such as Reykjavk, Herjólfshaldur, Hvitarholt, Granastaðir and Hofstaðir it would seem that non-ferrous metal workers were either working along-side those making or repairing iron objects (as also appears to be the case in Viking York), or else both types of metalworking were done by the same individuals. In either case, and based on the complexities of both
crafts, these individuals could not have been present on every farm, thus contradicting the independent household model as stipulated by earlier research. Instead what appears to be more realistic is the model currently in preparation by Kevin P. Smith which he refers to as the "network model" of interaction between households and a more complex pattern of economic exchange (Smith, 1995; Smith and Hayeur Smith, 2001). This in turn adds to the social complexities of a stratified society as one might question who controlled these craftsmen? And how did they operate between farms and estates?

The magico-religious associations of jewellery proved to be the least revealing of the three areas I examined. No jewellery revealed attitudes about death in early Icelandic society that differed from what is apparent in other regions of the Viking world and could be attributed to a general Scandinavian cultural trait: the use of amulets and their apparent association with the pantheon described in the Eddas. Jewellery pointing to the religious and magical dimensions of society was recorded, therefore, exclusively in the form of amulets most of which were pagan, suggesting that the early settlers used amulets to control and protect themselves from supernatural powers that they believed surrounded them. Amulets were found to include Thor's hammers, crosses, pendants depicting human faces, bells, certain arm rings, and beads/ or materials possessing magical properties. Due to the scarcity of material it was not possible to identify amulets dedicated to specific magical outcomes, such as protection in childbirth, love spells etc.

Finally it can be said that Icelandic jewellery from the landnám and early Commonwealth periods, being largely imported from Scandinavia, fit into a pan-Scandinavian type of material culture reflecting the origins of the settlers of Iceland. Certain Icelandic idiosyncrasies, apparent in the jewellery and the burial assemblages, are a reflection of a possible North Atlantic Norse
community indicating that a distinct Icelandic identity was in formed during the first generations of the Norse expansion to the North Atlantic islands. With the introduction of Christianity into Icelandic society it becomes difficult to conduct a study using jewellery from burials to gain social insights, as the burials are marked by an absence of grave goods. Furthermore, jewellery is rarely found in Icelandic habitation sites from any period. It is difficult therefore, to discuss the end of the Commonwealth without using historical data and other forms of archaeological material.

The Viking period jewellery described in this thesis disappeared completely from the archaeological record around 1000 AD, and yet jewellery and its use clearly did continue into the Medieval period as is apparent from few scattered stray finds of post 11th century jewellery from written descriptions, and from the heavy use of silver jewellery in later Icelandic traditional dress. Medieval jewellery was worn by women and took on more and more the appearance of jewellery worn on Scandinavian traditional dress from recent centuries. This change in costume was undoubtedly influenced by Norway’s renewed involvement in Iceland at the end of the Commonwealth period. Silver rather than gilded bronze was the material of choice for this later from of adornment, and one might question what happened to the Viking Age material? How did it fall into disuse? The bronze may have been melted down and reworked to create other objects, but what happened to the silver? It is possible that far more silver jewellery circulated in Viking Age Iceland than is apparent in the archaeological record, but as a valuable metal was melted down to make jewellery in newer styles.

In this thesis the jewellery from Viking Age Iceland was subjected to as many possible forms of scrutiny as possible. Literary, archaeological, socio-cultural, and technical analyses were combined. Through the study of material culture, what has been done to jewellery, in this thesis, could be now be applied to other data-sets of Iceland. Other studies of material culture
from the burials of Iceland would offer supplementary information worth comparing to studies such as this one. More social analyses are needed in Viking studies, enabling scholars working on the material record of the North Atlantic to compare their results and further define the socio-cultural climate of this region. The technical analysis applied to Iceland would also benefit from further investigations into the question of moulds and crucible making with the use of Icelandic volcanic and glacial clays. Furthermore, the casting techniques discussed here need to be applied to the Icelandic setting, using Icelandic resources under Icelandic conditions.

Material culture is culture. Material culture is society and jewellery as adornment from whatever cultural setting plays an active and dynamic role in projecting and depicting various dimensions of the social world from which it originates.
APPENDICES
APPENDIX A. Viking period casting techniques and the making of oval brooches: experimental trials conducted at the Glasgow School of Art

Scandinavian trade centres of the Viking period offer abundant archaeological information and data regarding the casting techniques from this period. These techniques have been the topic of ongoing research for the past 100 years, as scholars have focused predominantly on the production and casting of oval brooches. Despite this invested interest in the area, a certain amount of disagreement has prevailed regarding the specific phases in the process of casting of oval brooches. It is the intent here to review these processes and offer some possible insights and clarifications into the techniques based on my practical knowledge of silversmithing, as well as experimental trials which were conducted as part of my doctoral research in Archaeology at the University of Glasgow and the Glasgow School of Art.

The dissension regarding Viking casting appears in the following areas:
1. During the preliminary phase of brooch production, was the original brooch matrix/ pattern made of wax? Was it a cast brooch? Was it a dye or permanent model made of some durable material such as lead, pewter, tin, antler, soapstone or clay?
2. Why were Norse craftsmen resorting to piece moulds when the more efficient one piece mould combined with lost wax casting would do the job as efficiently?
3. What was the purpose of inserting fabric in the casting process, the impression of which is visible on the inside of oval brooches?
The practical concerns of Norse craftsmen

In this field of experimental archaeology scholars have frequently failed to consider the practical and technical concerns of craftsmen. Oval brooches were items of jewellery, which were worn in pairs, generally identical ones. Furthermore, as an item of female dress oval brooches were subjected to fashion and underwent changes over the period during which they were used. Some were single shelled (generally earlier models) while others were double shelled. Furthermore, they were highly decorated with motifs that were, in themselves, subject to fashion.

Craftsmen had to comply with three concerns: 1. To insure that they were producing pairs of brooches; 2. To insure that these brooches were in the desired style of the time; 3. To sell as many brooches as possible by making them as efficiently as possible, without wasting time or materials.

Former research

Research into the casting of oval brooches and casting techniques in general has been a topic of discussion by the following scholars: Lamm (1973) Brinch Madsen (1984), Ingmar Jansson (1981, 1985), Signe Horn Fuglesang (1987, 1992), and Lønborg (1994). Some of the results from this research have been summarised below in charts. In these charts I have placed particular emphasis on the “problematic” areas enumerated above.
Table 27: Mass production of oval brooches: Step 1: Brooch matrix (primary model) and secondary models.

<table>
<thead>
<tr>
<th>Original Matrix</th>
<th>Tool: secondary models</th>
<th>Fabric</th>
<th>Second ary wax model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brinch Madsen</td>
<td>Carved beeswax</td>
<td>Wax is covered in clay, heated, wax is poured out leaving a master mould (tool)</td>
<td>Slush- pour beeswax, fabric is inserted to facilitate removal of the model: hence the imprint of fabric on the inside of the metal brooch</td>
</tr>
<tr>
<td>Jansson</td>
<td>Bronze brooch</td>
<td>Covered in clay. Let to dry and removed, resulting in a master mould not used in casting, but used for making wax replicas</td>
<td>Slush pour beeswax, no fabric is inserted at this stage. Wax replicas are retouched by hand</td>
</tr>
<tr>
<td>Lenborg</td>
<td>Model unspecified but this author is opposed to the use of existing brooches</td>
<td>Covered in clay, let to dry removed: creating a master mould.</td>
<td>Solid beeswax replicas are made in the tool. No fabric is inserted at this stage, wax replicas are retouched by hand</td>
</tr>
<tr>
<td>Fuglesang</td>
<td>Wax and existing brooches</td>
<td>Covered in clay, resulting in a master mould from which wax duplicates can be obtained.</td>
<td>Solid wax replicas are made, no fabric is inserted.</td>
</tr>
</tbody>
</table>
Table 28: Step 2: Making of the mould:

<table>
<thead>
<tr>
<th></th>
<th>Front of mould</th>
<th>Back of mould, presence or absence of fabric</th>
<th>Loss of wax model</th>
<th>Reassemble of mould, casting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brinch Madsen</strong></td>
<td>Loam pressed on in layers over wax model and let to dry.</td>
<td>Loam pressed in back of wax model, let to dry.</td>
<td>Mould is separate d. Wax model is removed to be reused.</td>
<td>Mould is reassembled, and more loam added to close seams. Mould is fired first, then molten bronze poured into mould. When cooled it is broken open resulting in two part moulds from Ribe.</td>
</tr>
<tr>
<td><strong>Jansson</strong></td>
<td>Loam pressed into secondary wax models, and wax is melted out.</td>
<td>Loam pressed into back of wax model</td>
<td>Mould is sealed no mention of fabric.</td>
<td>2 part mould ready for casting, only one casting possible, mould broken open. Based on material from Birka.</td>
</tr>
<tr>
<td><strong>Lenborg</strong></td>
<td>Loam pressed on in layers over wax model (to avoid cracking), wax model melted.</td>
<td>Keys cut into edges of upper portion of mould, wax studs for pin holders are added by heating to the negative inner side of the mould. Fabric dipped in wax (making it more rigid) and pressed into brooch for metal thickness. A rigid sprue is added to the previously half cut sprue. Loam built up in layers for back of brooch. Let dry</td>
<td>Fabric dipped in wax and pins are melted out by heating brooch. Mould separate d cloth taken out.</td>
<td>Mould reassembled, more loam added to close seams. Mould fired and when it has reached its optimal temperature, bronze is poured into mould. The mould is cooled and broken open.</td>
</tr>
<tr>
<td><strong>Fuglesang</strong></td>
<td>Loam is pressed onto solid wax model (with sprue), wax model is heated out, and top portion of the mould is left to dry.</td>
<td>Wax pegs are inserted into to negative inner side of the mould, and fabric dipped in wax (for rigidity) is inserted inside. Keys are cut out. Back of the mould is built up with tempered clay, and let to dry.</td>
<td>Mould is heated and the wax runs out. The two pieces of the mould are separate d and the fabric removed</td>
<td>Mould is reassembled, and seams sealed with more clay, the mould is then heated and when is has reached the desired temperature, molten bronze is poured. Mould is cooled and broken open.</td>
</tr>
</tbody>
</table>

384
Basic description of the mould making process based on experimental trial conducted at the Glasgow School of Art

In the following paragraphs I will outline the basic steps I chose to create oval brooch moulds according to the techniques possibly utilised in the Viking era. This section is intended as a guideline so that the reader may more easily follow the subsequent discussions. I conducted these experiments, with the help of Roger Millar head of silversmithing from the Glasgow School of Art.

Obtaining a Viking period oval brooch

To conduct these experiments adequately, I needed at my disposal an oval brooch. It was therefore, arranged that a silicone mould would be created of an existing Swedish P51 brooch housed at the Kelvingrove Museum, in Glasgow (Plate 11). The silicone mould would allow me to create wax duplicates and cast these wax models using modern casting technology in order to obtain an original master from which to conduct the subsequent experiments. From this silicone mould, I was also able to create as many wax models as I desired. Therefore, the benefits of this first step were twofold: 1. Produce several wax replicas of an original Viking brooch; 2. Cast a metal copy, both of which would allow me to test the hypotheses suggested above. With the wax and metal copies I was able to engage in the second step of my experimental trials: the making of moulds.
Plate 11: Silicone moulds of Viking period P51 brooch from the Glasgow Museums (Photo: M. Hayeur Smith).

The clay and tempers

This portion of the experiment I conducted in Canada over the summer of 2000. My first task was to acquire clay. I obtained three types of clay and used all three with different tempers in order to test their efficiency in the making of moulds: Clay from the Mont Pinnacle, Quebec; Clay from Cap-de-Bon-Desire, North Shore, Quebec; and commercially bought clay from an art store. To the commercial and North Shore clay I added a variety of tempers based on experiments carried out by Kristina Lamm (1973) at Helgö.

58 The Mont Pinnacle clay was found in a stream and was very gritty with a high degree of impurities mixed in with the clay. I had to eventually discard it as mould making material. The commercial clay was adequate due to the chemical components added to the mixture, but not representative of Viking age technology. The North Shore clay was the most malleable and appropriate for this line of research, and has been used for millenniums by Native American people for the fabrication of ceramic pots. Prehistoric Woodland sites throughout this regions are littered with ceramic sherds made of the same clay used in these experiments.

59 For the description of these tempers, see the discussion below on tempers.
Mould making

The moulds were made in the following manner:
1. Using either a wax model or bronze brooch which had been greased with Vaseline I applied layers of clay on the top surface.
2. I allowed the clay to dry for approximately one half hour to one hour.
3. I removed the bronze model and used it to create more moulds. It was also possible to remove the wax models without heating them, though they frequently broke.
4. While the mould was drying, I cut the sprue out directly with a knife along with the keys.
5. I then added a piece of linen cut in an oval to rest on the inside of the mould and constructed the top shell of the mould over it.
6. Following the making of the moulds and allowing them to dry for several days, I sealed them and proceeded to firing them for 15 hours in an open fire.
7. Certain moulds were cast at the Glasgow School of Art.

---

60 The top shell of the mould cannot be left to dry longer as it shrinks and it is no longer possible to make the bottom portion fit.
61 I allowed the moulds to dry and on some samples removed the fabric, as was suggested by past scholarship, and left it in others to verify how it would react to firing as well as what sort of imprint it would leave on the clay after firing. For one of the samples wax soaked linen was inserted into the mould, and pin hooks were added as suggested by former researchers.
62 One of the fired mould samples was placed in a kiln at the Glasgow school of art and heated very slowly over a period of two hours, a method that most closely resembles the Viking casting environment (See Plate 36).
Plate 12: Making moulds using either wax models or existing brooches (Photo: A.Y. Smith)

Results from the experimental tests and discussion of past research in light of these results

The master model: wax

In any casting process it is necessary to begin with some sort of master model or pattern from which to cast. This can be an existing item of jewellery, a master model or dye, or a wax model. The master model was an important part of the process, particularly to the craftsmen who was concerned with casting as many intricately decorated pairs of brooches as possible. To carve an individual wax model for every brooch to be made, is in itself, complicated and a very time consuming process.

Brinch Madsen (1984) argued that the craftsmen dealt with this problem by using as a starting point a piece of carved beeswax, which was then covered
with loam (clay tempered with organic material, sand and chamotte) in order to create the “tool” (Brinch Madsen, 1984: 92). The tool is a half mould that can be used to retrieve multiple wax replicas of one item of jewellery, thus, offering an endless supply of identical wax brooches. Jansson (1981) also argued in favour of a tool, as did Fuglesang (1992). With my own trials, while I found that the existence of a “tool” as defined by Brinch Madsen, was useful, it did not satisfy the need for piece moulds in casting. The production of multiple wax models is appropriate for lost wax casting where a one-part mould is used, and the wax is melted away prior to casting of the mould. The technical inconsistencies between wax models and piece moulds will be addressed later.

*The use of existing brooches or brooch dyes*

Other scholars have suggested that instead of a tool and multiple wax models, craftsmen used an existing brooch or brooches die pressed directly into the clay. (Fuglesang, 1987: 219). No evidence exists for oval brooch dies, though a metal-working die was retrieved from a Norse context in Scotland. At the Brough of Birsay in the lower Norse horizon a Pictish lead disc was found. It is thought that it may have been used in non-ferrous metal-work either as a pattern for a two-pieced mould, or used in cire-perdue (lost wax process), or again as a stamp for embossed work in silver (Curle, 1982: 49). Similar lead models of pendants decorated in the Borre style were found at York and are thought to be lead alloy matrixes for making moulds (Roesdhal et al., 1981, YMW13 in Mainman and Rogers, 2000:2475). While not relating directly to the fabrication of oval brooches, what these lead items indicate is that this technology was known to craftsmen of the time.

Numerous examples exist in the archaeological record from Iceland as well as elsewhere in the North Atlantic of jewellery, which appears to have been
cast from pre-cast brooches. This is apparent in the overall rendering and appearance of the brooches themselves. Castings from existing brooches can be recognised by the following elements:

- **Shrinkage**: first generation brooches are often larger than second or third generation ones and this is due to the 10% shrinkage which occurs during any casting. Thus, if using a wax model the final brooch will have shrunk 10% from the original.

- **Lack of crispness in detailed designs**: When casting from existing brooches a certain amount of detail is lost in the process requiring re-chasing of the motifs either prior or after casting. Often the re-chasing is not carried out producing a fairly low quality brooch. It might be possible to suggest that the array and variety of standardised motifs apparent in certain types of oval brooches (such as the P51 series) could have arisen from casting from existing brooches. The same conclusion was reached by Jansson who argued that the variation and sub-categories of design in the P37 brooches, was the result of brooches being produced from existing brooches (Jansson, 1985: 49). In this manner the craftsmen may have progressively altered an original design transforming it into something quite different.

- **Loss of detail**: On first generation and high quality oval brooches, grooves exist designed to hold supplementary silver ornament such as twisted silver wire (see Plates 13,14). When faced with second or third generation brooches these grooves become stylised patterns integrated into the cast. It, therefore, becomes difficult if not impossible, to add silver wire to the surface of the brooch as the grooves are no longer present to contain them (see Fig 91). Jansson observed brooches from Birka where the tiny holes for holding wire were still present, while the grooves had been transformed (Jansson, 1985: 77-78).
Plate 13: Reay (no. 334) NMS displaying grooves for wire decorations. (Photo: M. Hayeur Smith).

Plate 14: Brooch 138 from Ballinaby (NMS) silver decorative wire on the surface of the brooch (Photo: M. Hayeur Smith).
Jansson (1981), and Fuglesang (1987) argued in favour of the use existing brooches to cast subsequent generations of brooches. For Jansson the use of existing brooches as a basis for making moulds, was apparent in the
stylised grooves discussed above as well as the variety of sub-families which arose from brooch types such as the P 51 family (Jansson, 1981: 5). For this author the use of an existing brooch was used exclusively in the making of the preliminary “tool” as described by Brinch Madsen, an implement used to extract successive wax models which in turn were reworked prior to making the final mould (Jansson, 1981: 5-6).

As was observed in my own analysis, Fuglesang also noted a correlation between smaller size and lower quality of craftsmanship and lack of fine detail (Fuglesang, 1987: 219). Furthermore, using some Icelandic examples this author demonstrated convincingly that some brooches were visually copied, leading to large brooches with rather unskilful or awkward design. Brooch no. 7931 from Kalastaðir is a cast P 48 oval brooch probably produced in and imported from, Scandinavia (Fig.92). It is a well-rendered P.48 and is said to have had a predominantly west Scandinavian distribution (Fuglesang, 1987: 228). Brooch no. 245 is also a P.48 brooch that was, according to this author, visually copied from another P.48. No. 245, was made by an unskilled craftsman who copied it visually resulting in a lack of symmetry in the design as well as overall poor representation (ibid.) (see Fig.93).
Figure 92: No. 7931 from Kalastaðir (10.9cm x 6.9cm), a P48 oval brooch photo and drawing (Photo and Illustration: M. Hayeur Smith).
My own analysis has revealed several Icelandic brooches which appear to have been cast from existing brooches based on the criteria listed above. Nos. 5030 a/b from Skogar í Flókadal are the oldest known brooches from Iceland and are P24 Berdal type brooches. When compared to other P24 type brooches from elsewhere in the Viking world this pair was not made with a high degree of precision or skill. Skogar í Flokadal brooches measure 10.8

63 See chapters 6, p.275 (Fig.67) and 7, p.351 for more discussion on these brooches.
cm long x 5.5 wide. The metal was 0.2mm thick. Despite the fact that these brooches were very old when placed in the grave the designs on the Flókadal brooches are unclear resulting from poor craftsmanship rather than corrosion. The Osberg animals that decorate the various panels are no longer recognisable. (Fig.94)

Figure 94: Berdal style ornament on oval brooches (Jansson, 1985:31)

Another example of second or third generation casting, is the brooch no. 371 from Höf, a P51g variant. The P51 g are, according to Jansson (1985), a later variant in the P51 family, younger than the P51 b type brooches (Jansson, 1985: 227). This category is identified as belonging to the late 9th century (ibid.). The P51g from Höf is not of fine quality. It is very small (9.6 cm x 5.8) and offers several clues that it was cast from an existing brooch. The groove designs to hold silver wire on the top shell of the brooch have been replaced by chased designs imitating twisted wire. Furthermore, this brooch, unlike most oval brooches, offers a total number of nine decorative bosses on its top shell. Under normal circumstances only five of the bosses are integrated into the casting, while the other four are generally added
subsequently. These additional four bosses were made of an alloy of tin and lead, as noted on the oval brooches from Kneep, in contrast to the gild of the brooch beneath (Welander et al. 1987:160). As the brooch from Hóf was cast from an existing brooch the decorative silver bosses were integrated into the next generation cast (See above.). The tiny holes that form part of the design, used to pass decorative wire under the brooch shell, have also disappeared.

Nos. 11564 a/b from Álaugarey are P51a type oval brooches, an earlier style than the brooch from Hóf, and attributed to the early 9th century (Jansson, 1985: 227). The Álaugarey brooches are a pair that may have been cast from existing brooches. They measure 10.7x 6.8 cm for brooch a, and 10.7 cm x6.4 cm for brooch b. First generation brooches tend to measure on average 11 cm or more. Frequently brooches which have been cast from an existing brooch or brooch die are re-chased prior to or after casting. The brooches from Álaugarey are relatively small and display evidence of rechasing.

More convincingly the P55 brooches, no. 10912 of unknown provenance, and no. 14871 from Syðri-Hofðalir offer possible evidence for having been cast from existing brooches. P55 brooches are considered as belonging to the end of the oval brooch sequence. Therefore, the late 10th century when they began to fall out of use. The style is somewhat degenerative compared to its predecessors. No. 10912 is considerably smaller than no. 14871. No. 10912 measures 10.6 cm long as opposed to 11.1 cm for the latter. Furthermore, there is evidence of post-casting rechasing on no. 10912 (Fig.95)

64 See chapters 2,p.76 , 7,p.317.
Throughout the discussion of preliminary models one must bear in mind that Jansson (1981), Brinch Madsen (1984), and Fuglesang (1992), were all suggesting the creation of a preliminary mould or tool from which to retrieve wax duplicates. Jansson and Fulgesang saw the use of a brooch to make the tool, while Brinch Madsen suggested a wax master model. I believe the making of a tool to be an unnecessary step in the process, an extra chore with no real purpose.

For the making of the final mould (the one to be cast), if the craftsman used an existing brooches, wax model or die, depended largely on whether or not he chose to use the lost wax process requiring a one part mould, or if piece moulds were preferred. The archaeological evidence supports piece moulds, suggesting that craftsmen were concerned about mass production of identical brooches and retrieving a pattern before casting. Retrieving any type of wax replica is highly impractical (Plate 15), as the wax is too fragile to withstand this sort of manipulation, despite the fact that some have argued for solid wax replicas. Preliminary greasing of the tool (with animal fat or...
soot) does not facilitate retrieval as the problem lies in the fact that the tool is made of a solid material, clay, and wax is softer, more malleable, and consequently more fragile. The only way to retrieve the wax is to destroy it by melting.

As consistency and efficiency were key concerns to the craftsmen, it does seem likely that they used a brooch die or cast brooch allowing them to fabricate several final moulds at once without wasting time producing a countless supply of wax models and then creating piece moulds from each of them (Plate16). Furthermore, according to the technique proposed by Brinch Madsen (1984), the jeweller would have had to carve out of wax a brooch model with which to make the tool to then retrieve his secondary wax models. The use of this technique is lengthy, and would have increased the production time as well as the effort involved.
Plate 15: Wax master (Photo: M. Hayeur Smith)

Plate 16: Brooch master (Photo: M. Hayeur Smith).
Fabric imprints and the use of piece moulds

Numerous Viking period brooches have fabric imprints on the insides of the brooch (Plates 17, 18).

Plate 17: Fabric imprints on the inside of oval brooches (NMS) (Photo: M. Hayeur Smith)

Plate 18: Fabric imprint on the inside of oval brooches (IL 223 NMS) (Photo: M. Hayeur Smith).
These imprints are the result of fabric being inserted inside the clay mould prior to casting. Brinch Madsen (1984) saw the introduction of the fabric as an integral element in the process of recuperating the wax models from the tool. The jeweller would pour wax into the tool, insert a piece of fabric and use the fabric along the edges to pull the wax model out of the tool (Brinch Madsen, 1984: 92), thus explaining the fabric imprint on the insides of the brooches.

My own trials using this technique demonstrated that the fabric puckered on the insides the walls of the wax model (Plate 19). These pucker marks would be transferred to the cast brooch as the casting process is highly sensitive and even the most fine imprints are picked up. None of the brooches analysed during the course of my research displayed any such puckering of fabric on the inside shell. Furthermore, this method of retrieving wax models resulted in several of them collapsing despite the fact that I had greased the inside of the tool. From my analysis of Scottish oval brooches, such as the brooch from Castletown where the fabric imprint is crisp, there is evidence that the fabric was cut to fit tightly on the inside shell with no overlap of fabric beyond the edges of the brooch.

Plate 19: Example of how fabric puckers on the inside of the wax model when applied to the wax. (Photo: M. Hayeur Smith)
Other scholars have proposed that the fabric imprint on the insides of oval brooches resulted from the jewellers inserting a piece of wax-dipped fabric between the two halves of the piece mould allowing the jeweller to obtain an even thickness of metal inside the mould (Jansson 1981, 1985, Lønborg, 1994). Fuglesang (1992) argued that it served as reinforcement to the wax master (Fuglesang, 1992: 198). By the same token, the piece mould according to this theory enabled the craftsman to remove the fabric before casting (Lønborg, 1994: 164; Fuglesang, 1992: 198). While the piece mould does facilitate the removal of a brooch master, (solving the problem of producing duplicate brooches) two inconsistencies exist relating to the presence of the fabric in the mould.

The first inconsistency lies in the idea that the fabric was impregnated with wax before insertion into the mould. My own experiments demonstrated that a piece of wax-soaked linen left a very faint impression on the clay, while plain linen left a more substantial imprint. In sample 10 (see Plate 20) where linen was dipped in wax no imprint is visible at all, while other moulds from my samples where linen was placed in the mould alone left remarkable imprints. Scholars argued in favour of the theory as they somehow imagined that fabric alone would not sit tightly on this inside of the mould and needed to be imbibed in wax (Lønborg, 1994: 164). However, thickly woven linen is heavy enough to offer a proper fit and if achieving the adequate thickness was a problem, the linen could be applied in layers.
Plate 20: Sample 10 where linen was wax dipped. Fabric imprint is not significant and it can increase the thickness of the metal significantly rather than keep it thin. (Photo: M. Hayeur Smith).

Removing the fabric before closing the mould is also unnecessary. Our first impression was that the fabric might create a residue in the inside of the mould, creating a barrier or hindering the flow of metal. To verify this hypothesis, I took several samples of fabric: thick (tweed) wool, as well as linen. I soaked some of them in wax, left others un-soaked, and also took imprints in beeswax of the various textures of fabric. All samples were cast in bronze to verify how well these natural fibres would burn out of the mould and/or react to the casting. None of the samples interfered in the casting process even the thicker tweed samples indicating that the presence of carbon residue in the mould did not obstruct the casting in any way. Further research and discussion of the matter indicated that the presence of carbon in the mould could potentially prove to be beneficial. It is a well documented fact that non-ferrous metal-workers while melting bronze in a crucible will add a layer of boric acid powder as well as crushed charcoal in order to prevent oxygen being introduced into the melt. Too much oxygen in the metal or
mould will result in an aborted casting, with numerous air bubbles obstructing the shape and designs on the item being cast:

"To keep the possible introduction of oxygen low, it is advisable to cover the metal with crushed charcoal, which also helps creating a reduced atmosphere. Before covering with charcoal sprinkle a pinch of flux in the form of boric acid powder over the metal. Flux aids in achieving homogeneous metal composition, and also helps to prevent the introduction of oxygen into the melt. Now the crushed charcoal can be placed on top". (Untracht, 1982:37).

When the brooch moulds were fired I intentionally left a layer of fabric inside the mould in order to verify how the firing process would affect the fabric as well as the imprint on the inside of the mould. The fabric imprint came out very clearly and the fabric remained intact from the firing, though completely carbonised. Pouring hot metal onto a carbonised piece of fabric would likely result in an additional build up of carbon in the mould which in turn, could help with the removal of oxygen.

**Tempers**

The temper added to the clay used by Viking craftsman also facilitated the evacuation of oxygen from the mould. Based on work carried out at Ribe and Helgö I followed various combinations of temper for preparing my clay for mould making. Investigations from Helgö revealed that the clay was mixed with fine-grained quartz as well as chamotte (made from crushed crucibles) (Lamm, 1973:4). Tests conducted at Helgö indicated that 30-40% of quartz was the best proportion of fine grained quartz for moulds, while crucibles could sustain a higher percentage between 50-55%, in order to obtain higher refractory qualities (Lamm, 1973: 5). Brinch Madsen noted the addition of fine organic material added to the clay (Brinch Madsen, 1984: 31). The purpose of the organic material is to render the clay sufficiently porous to allow for oxygen to seep out during casting. For my own trials I combined the values of both researchers and mixed 40% of fine beach sand with 20% of fine silica sand.

---

65 See chapter 7, p.338-339 (Plates 8,9) for casting flaws on the Reykjavik ring from a ringed pin.
of gardening peat. Peat could also be replaced with manure as is done among the jewellers of North Africa. (Gabus, 1982: 443).

In the chart below, I have listed the mould samples I created and what was used as temper, on one hand, and as master model on the other. I have also indicated what became of the moulds, when fired and ultimately when cast. The abbreviations stand for: Comm (Commercial clay), Mt P. (Mont Pinnacle)\textsuperscript{66}, N.S. (Cap-de-bon-Desir, North Shore)\textsuperscript{67}.

<table>
<thead>
<tr>
<th>Smp</th>
<th>Clay</th>
<th>Sand</th>
<th>Peat</th>
<th>Master model used and results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comm</td>
<td>40%</td>
<td>0</td>
<td>Bronze brooch, fired and cast at GSA\textsuperscript{68}, flawed casting.</td>
</tr>
<tr>
<td>2</td>
<td>Mt P.</td>
<td>60%</td>
<td>0</td>
<td>Bronze brooch, mould broke during firing of clay.</td>
</tr>
<tr>
<td>3</td>
<td>Comm</td>
<td>40%</td>
<td>0</td>
<td>Wax master, clay fired not cast (half mould only)</td>
</tr>
<tr>
<td>4</td>
<td>Mt. P.</td>
<td>60%</td>
<td>0</td>
<td>Wax master, broke prior to firing of the clay.</td>
</tr>
<tr>
<td>5</td>
<td>Comm</td>
<td>40%</td>
<td>40%</td>
<td>Bronze master, half mould, was fired not cast.</td>
</tr>
<tr>
<td>6</td>
<td>Comm</td>
<td>40%</td>
<td>40%</td>
<td>Wax master, clay fired and subsequently cast in a kiln at GSA: Temper not adequate.</td>
</tr>
<tr>
<td>7</td>
<td>Mt P</td>
<td>0</td>
<td>0</td>
<td>Destroyed</td>
</tr>
<tr>
<td>8</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Bronze master, fired but fell on the floor and broke prior to casting</td>
</tr>
<tr>
<td>9</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Wax master, broke during firing of clay.</td>
</tr>
<tr>
<td>10</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Bronze master, fired and cast at GSA: good results</td>
</tr>
<tr>
<td>11</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Wax master, fired, cast at GSA, half cast due to small sprue</td>
</tr>
<tr>
<td>12</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Bronze master, broke during firing of clay.</td>
</tr>
</tbody>
</table>

Table 29: Mould sample created with admixture of peat and sand.

\textsuperscript{66} The Mont Pinnacle clay Sutton, Quebec was taken from a stream and stems from Pleistocene deposits overlying and possibly derived from early Palaeozoic slates (A.Y. Smith personal communication, 2001)

\textsuperscript{67} The North shore clay from Cap-de-Bon-Desir, Quebec was collected on the beach and results from Pleistocene lake-bed deposits overlying late pre-Cambrian Grenville granite and granite gneiss (A.Y. Smith, personal communication, 2001).

\textsuperscript{68} GSA: Glasgow School of Art.
The North Shore clay proved to be the best clay for this purpose with an admixture of 40% sand and 20% peat (Plate 21). This combination kept the clay sufficiently fine, enabling it to pick up details in the design. Equal portions of sand and peat rendered the clay far too moist subjecting it to cracking while drying.

Plate 21: Half mould made of North Shore clay (Photo: M. Hayeur Smith).

The clay mixture was built up over the models until it had reached a thickness of approximately 1.5-2.0 cm as noted by Lønborg. (Lønborg, 1994: 164). In sample 1 of my experiments I added no peat and only 40% sand. The final cast product was covered in small depressions resulting from air bubbles that could not escape through the walls of the mould, and hence obstructed the flow of metal and the final appearance of the brooch. (see Plate 37)
Plate 22: Mont Pinnacle clay, which proved too gritty for mould making. (Photo: M. Hayeur Smith).

Plate 23: Commercial clay and brooch imprint with sprues, and keys cut out with a knife. (Photo: M. Hayeur Smith).
Sprues, keys, and hooks

Sprues and keys were added to the moulds with the help of a knife, and while the clay was still wet. However, particular attention must be paid to make the sprue large enough so as to enable the flow of metal. This problem occurred with sample 11 resulting in a half cast brooch. The addition of a solid wax sprue to the wax model is another unnecessary measure established by former research, which increases the production time of the mould.

The insertion of wax pegs (to create hooks) into the cope portion of the mould, as argued by Fuglesang (1992) and Lønborg (1994), is another procedure which makes little sense. Both authors have proposed that the insertion of these pegs should be done directly onto the cope of the mould. However, this would interfere with the smoothness of the top shell of the brooch. Following this approach one would need to construct the drag over the cope with the fabric and pegs inside, heat the mould in order to melt the wax, open the mould to remove both fabric and wax residue. I discussed this strategy with another craftsman who agreed that this was a more complicated approach to the problem. He suggested making the required incisions directly into the drag with a knife or sharp object, as any perforation would be integrated into the cast (D. Markovitz, personal communication, 2000). This solution was integrated into my own trials and proved a straightforward technique avoiding excessive manipulation of a fragile and not fully dried mould, as well as keeping the waste factor to a minimum.

---

69 "Cope" refers to the top shell of the mould.
69 "Drag" refers to the bottom shell of the mould.
Firing

Prior to casting the moulds were fired using primitive-firing techniques. A pit was dug in the earth and sand was added (Plate 24). A fire was built and left to burn until reduced to hot coals (Plates 25,26). The coals were then pushed to one side of the pit while the moulds were placed at the base of the pit resting on three small planks of wood (Plate 27). With the help of a shovel the coals were dispersed over the moulds (Plate 28). A second fire was built over the coal-covered moulds and left to burn out completely (Plate 29). This method produced an enclosed kiln-like structure, where the moulds were left for 15 hours and left to cool (Plate 30,31). Most moulds withstood the heat and only a few broke and cracked (Plate 32). This was due to the temper added to the clay.

Plate 24: Building of the fire pit for “primitive firing” of the clay moulds (Photo: M.Hayeur Smith).
Plate 25: A preliminary fire is made (Photo: M. Hayeur Smith)

Plate 26: The fire is let to die out so that hot coals remain (M. Hayeur Smith)
Plate 27: The coals are pushed aside and the moulds placed on several planks of wood (Photo: M. Hayeur Smith)

Plate 28: The clay moulds are then covered with hot coals (Photo: M. Hayeur Smith)
Plate 29: A second fire is built over the moulds and let to burn completely (Photo: M. Hayeur Smith).

Plate 30: Ashes and clay moulds remaining in the pit (Photo: M. Hayeur Smith)
Plate 31: Fired clay mould in the ashes after 15 hours of firing (Photo: M. Hayeur Smith).

Plate 32: Recovered moulds from the firing. (Photo: M. Hayeur Smith).
Casting

With several brooches at hand I attempt to cast with them, thus verifying if the moulds were of any use, and what effect the tempers had on the final product. The moulds were preheated until they had reached a temperature of 475 degrees Celsius, a necessary step prior to pouring molten metal (Plate 33, 34). Four moulds were cast. The chart below displays the results of the casting.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Clay</th>
<th>Sand</th>
<th>Peat</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Com</td>
<td>40%</td>
<td>0</td>
<td>Flawed casting filled with bubbles due to poor temper (no organic matter)</td>
</tr>
<tr>
<td>6</td>
<td>Com</td>
<td>40%</td>
<td>40%</td>
<td>Cast in kiln, wrong admixture of peat and clay resulting in poor detail on the mould</td>
</tr>
<tr>
<td>10</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Very good cast, though final brooch a bit thick</td>
</tr>
<tr>
<td>11</td>
<td>N.S.</td>
<td>40%</td>
<td>20%</td>
<td>Flawed cast, due to small sprue size</td>
</tr>
</tbody>
</table>

Table 30: Samples used in casting, with results.
Plate 33: Pouring molten bronze into the mould. The moulds were placed upright in a metal container and stabilised by pouring plaster into the base of the container (Photo: M. Hayeur Smith).
Plate 34: Mould immediately after casting. (Photo: M. Hayeur Smith).

Plate 35: Breaking the clay mould after casting. (Photo: M. Hayeur Smith).
The main concern with the brooches cast from these moulds was the temper and achieving the desired quantities of sand and peat. The detail on the final brooches was perhaps not of high enough quality resulting from either poor quality clay or inaccurate temper. It occurred to us that the Norse craftsmen, like the Ashanti smiths do today, may have coated the models with a preliminary coat of clay mixed with charcoal, thus creating a very fine first layer able to pick up fine details. The temper recipes described in this chapter may have been subsequently added overtop this preliminary fine mixture of clay and charcoal (R. Millar, personal communication, 2001).

Removing the cast brooches from the moulds proved most problematic. This is something that Norse craftsmen would not have encountered as they cast almost immediately after the firing of the moulds while the moulds were still hot. In my situation the moulds were fired for 15 hours in Canada and then reheated in Glasgow prior to casting. Three of the moulds were reheated for a period of 15 hours, while sample 6 was heated in the kiln for an additional 2. This process subjected the clay to too much firing transforming it into terra
cotta and the consistency of brick (see Plate 35). It took up to one week to remove the clay from some of the brooches! Despite this inconvenience the overall results were encouraging for a first attempt at casting with these techniques.

Plate 37: Cast brooch from mould sample 1, note the bubbles on the surface of the brooch resulting from no organic matter mixed with the clay (Photo: M. Hayeur Smith).

Plate 38: Brooch cast from North Shore clay with admixture of 40% sand and 20% peat resulting in a more successful cast (Photo: M. Hayeur Smith).
Conclusion drawn from the experimental trials

To sum up, the mould making sequence can be summarised as follows:
1. A preliminary tool is unnecessary and the craftsman could use as a preliminary model any of the three following elements:
   - Carved piece of beeswax
   - A brooch dye made of a durable material (lead, tin, and antler)
   - An existing brooch
   The archaeological evidence and the existence of piece moulds indicates that the latter two were preferred by Norse craftsmen who in turn were concerned with producing pairs of intricately decorated brooches, while being as efficient as possible.

2. This rigid preliminary brooch pattern/master is greased with animal fat, fish oil or soot to allow easy retrieval of the model from the clay. It is then layered with a fine coat of clay and charcoal over which a loam and clay admixture, consisting of 40% fine-grained sand and 20% of organic matter, is applied.

3. Left to dry for one hour, the top portion of the mould, known as the cope, is equipped with sprues and keys, and the master removed and ready for reuse for making other moulds.

4. An oval shaped piece of linen is inserted into the cope while the drag is constructed with layered loam, thus espousing the form of the mould as well as the sprue and keys.

5. While still wet the drag is removed, and with a knife, the pin hooks are made by inserting the knife into the cope.
6. The piece mould is left to dry and reassembled and sealed by adding a layer of loam on the seams of the mould. The fabric is left inside the mould.

7. The mould is fired for a period of 15 hours prior to casting.

8. When ready for casting the mould, preferably while still hot from the firing, molten metal is poured directly into the mould. The charred linen inside the mould offers additional carbon to ensure a successful cast.

9. The mould is broken open to retrieve the brooch.

The use of piece moulds by Norse craftsmen was to facilitate their task and retrieve the preliminary model, which in turn offered an easy solution for the making of multiple brooches. The use of the fabric in the mould was to obtain an even thickness of metal throughout the shell of the brooch, particularly on later two-shelled brooches, where the overall weight of the piece became a concern to the wearer.

When conducting such experiments it is important that researchers pay particular attention to the way craftsmen function and work their craft, whether 1000 years ago or today. There is much to be gained by observing the way craftsmen work in any cultural setting, as the intent is generally to select the most straightforward and economical of techniques. Much of what former researchers have proposed lacks insight into the practical concerns of the craftsmen.
Appendix B: Data tables

Legend for “Graves” table.

The following table is a condensed version of the jewellery data from the database. Each item of jewellery is listed along with its archaeological context. I have had to use abbreviated letters for all of the data to fit into the chart. The list below offers a legend to facilitate its comprehension.

For a full description of the graves, grave goods and jewellery listed below I refer the reader to the new edition of the grave catalogue Kuml og Haugfé (2000).

Sýsla:
Árnêsýsla: A
Gullbringu-Kjósarsýsla: GK
Borgarfjarðarsýsla: Borg
Mýrasýsla: M
Snaefells-Hnappadassýsla: SH
Dalasýsla: D
Barðastrandarsýsla: Bard
Isafjarðarsýsla: Is
Strandasýsla: Strand
Vestur-Hunavatnssýsla: V.H
Austur-Hunavatnssýsla: A.H
Skagafjarðarsýsla: Skag
Eyjafjarðarsýsla: Eyja

422
Suður-Þingeyjarsýsla: S.P.
Norður-Þingeyjarsýsla: N.P.
Norður-Múlasýsla: N.Mul
Suður-Múlasýsla: S.Mul
Austur-Skaftafelissýsla: A. Skaft
Vestur-Skaftafelissýsla: V. Skaft
Rangárvallasýsla: R
Vestmanapeyjar: V
Uncertain: NA

Craftsmanship:
F: Fine
A: Average
C: Coarse

Country of fabrication:
SC Scandinavia
UK: United Kingdom
CE: Continental Europe
B: Baltic
I: Iceland
O: Orient

Grave type:
I: Inhumation
C: Cremation
BB: Boat burial

Grave location:
423
GF: Grave field
I: Isolated grave

**Character of grave:**
S: Single
D: Double

**Age:**
J: Juvenile
A: Adult
E: Elderly

**Sex:**
M: Male
F: Female

**Position of the body:**
E: East
W: West
N: North
S: South

**Animals:**
D: Dog
H: Horse

**Grave goods, “Other”:**
Includes items such as wood fragments, silver wire, fabric fragments as well as unusual objects found in graves. Whenever the reader encounters “NA” this refers to material which is either unavailable, or not applicable.
<table>
<thead>
<tr>
<th>Graves-1</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron belt</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Spearhead</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sphere</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Weapon</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Shoulder</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Knife</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Amulet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>CH</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dimensions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Body position on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grave location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grave type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fox of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewellery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.K.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.K.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.H.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.H.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.H.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.H.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VVM-64-128</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>X</td>
<td>Y</td>
<td>X</td>
<td>Y</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td>----------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Iron Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Middens</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mudlarks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Buttons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Birds</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ants</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chisels</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Combs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Escapes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Belts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Snaps</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weights</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Whistles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sps</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sickles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Firestarter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Phases</td>
<td>1368 B</td>
<td>13867 fitted pit</td>
<td>1781 Bell</td>
<td>1782 Beads</td>
<td>1786a T- brooch</td>
<td>1780a T- brooch</td>
</tr>
<tr>
<td>Number</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Item Name</td>
<td>Item Type</td>
<td>Year</td>
<td>Number</td>
<td>Material</td>
<td>Color</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td>----------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>Iron Kettle</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Copper</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Spade</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Spear</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sword</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Shield</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Axe</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Knife</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Maille</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Body</td>
<td>M</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sex</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Age</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Character of Claws</td>
<td>M</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Shoulder Location</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Grave Type</td>
<td>BB</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>County of</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Typeology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Art Design</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cream</td>
<td>C</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Material</td>
<td>Copper</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Dome</td>
<td>2.4 x 1.5</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Pendant</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Size</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Graves-2**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Varna</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Varna</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Varna</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Varna</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Varna</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Flax thread</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silk thread</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Twine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridle bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wax</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>China</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooke</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cloth</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lace</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Balances</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Loom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weights</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mules</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flax</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shells</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Buttons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Elbow</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File server</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item Name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron Ring</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nailerhead</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitney</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle Bit</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AWM</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooks</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escrow</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedge</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loom</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weights</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whalesbone</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spk</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sickle</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stihl</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipefitter</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Starter</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984-132 Pin</td>
</tr>
<tr>
<td>1984-133 Cam with rings</td>
</tr>
<tr>
<td>1984-134 Link</td>
</tr>
<tr>
<td>1984-132 Thor's hammer</td>
</tr>
</tbody>
</table>

430
<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron knife</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Edged</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gimel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Axe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>Position</td>
<td>W</td>
<td>W</td>
<td>W</td>
<td>W</td>
<td>W</td>
<td>W</td>
</tr>
<tr>
<td>Sex</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
</tr>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Art designer</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cream</td>
<td>A</td>
<td>F</td>
<td>A</td>
<td>NA</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>Copper alloy</td>
<td>Copper alloy</td>
<td>Copper alloy</td>
<td>Copper alloy</td>
<td>Copper alloy</td>
<td>Copper alloy</td>
</tr>
<tr>
<td>Dimen.</td>
<td>22.5 x 5.75</td>
<td>22.5 x 5</td>
<td>22.5 x 5</td>
<td>22.5 x 5</td>
<td>22.5 x 5</td>
<td>22.5 x 5</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
</tr>
<tr>
<td>Style</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shape</th>
<th>1198</th>
<th>1107</th>
<th>1202a</th>
<th>1202b</th>
<th>Hitar</th>
<th>7237</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brü</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brü</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brü</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brü</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graves-A

431
<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Beauty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shears</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scythe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunstock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gemstone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athlete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grave Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chamfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>2.9x2.9</td>
<td>2.7x2.7</td>
<td>13.3x1.8</td>
<td>8.5x1.8</td>
<td>11.6x1.9</td>
<td>9.1x1.9</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Knobbed Pin</td>
<td>Knobbed Pin</td>
<td>Knobbed Pin</td>
<td>Knobbed Pin</td>
<td>Knobbed Pin</td>
<td>Knobbed Pin</td>
</tr>
<tr>
<td>Size</td>
<td>7.345</td>
<td>A.H</td>
<td>S.P</td>
<td>S.P</td>
<td>S.P</td>
<td>S.P</td>
</tr>
<tr>
<td>Height</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tinder</td>
<td>12006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graves-5

433
<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Flag</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needle/Thread</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle Bar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needle Scissors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bone Handle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longtime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whistlebone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spur</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shield</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File/Brush</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>721 Oval brooch</th>
<th>13956 Ringed pin</th>
<th>809 Ringed pin</th>
<th>740 Round brooch</th>
<th>741 Round brooch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Flag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle/Thread</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridle Bar</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Awl</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooves</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coins</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle Scissors</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone Handle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Longtime</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weight</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Whistlebone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File/Brush</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>Sjálfa</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Kalfborgar á 742</td>
<td>S.P.</td>
<td>Beads x2</td>
<td>11x1.1</td>
<td>Rock</td>
<td>NA</td>
</tr>
<tr>
<td>Kalfborgar á 743</td>
<td>S.P.</td>
<td>Bead</td>
<td>1.6x0.9</td>
<td>Glass</td>
<td>NA</td>
</tr>
<tr>
<td>Kalfborgar á 744</td>
<td>S.P.</td>
<td>Bead</td>
<td>0</td>
<td>Glass</td>
<td>NA</td>
</tr>
<tr>
<td>Þorløtsstaðir 738</td>
<td>Ska g</td>
<td>Ringed pin</td>
<td>14.7x1.7</td>
<td>Copper alloy</td>
<td>NA</td>
</tr>
<tr>
<td>Alaugarøy 11585</td>
<td>A.Skaf</td>
<td>Bracelet</td>
<td>7.6x7.6</td>
<td>Lignite</td>
<td>NA</td>
</tr>
<tr>
<td>Alaugarøy 11584a</td>
<td>A.Skaf</td>
<td>Oval brooch</td>
<td>10.7x6.8</td>
<td>Copper alloy</td>
<td>NA</td>
</tr>
</tbody>
</table>

435
<table>
<thead>
<tr>
<th>Ron Kelly</th>
<th>0</th>
<th>1</th>
<th>1</th>
<th>1</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spool</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sheen</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weight</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spindle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pieces</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Knife</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Age</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Character</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Carving</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grave</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Country</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Typology</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Art design</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Material</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dimens</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Jewellery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Single</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alluvia</td>
<td>11964a</td>
<td>11964a</td>
<td>11964a</td>
<td>11964a</td>
<td>11964a</td>
<td>11964a</td>
</tr>
<tr>
<td>Portilosa</td>
<td>Ir 14015d</td>
<td>Ir 14015d</td>
<td>Ir 14015d</td>
<td>Ir 14015d</td>
<td>Ir 14015d</td>
<td>Ir 14015d</td>
</tr>
<tr>
<td>Site</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Graves 7
<table>
<thead>
<tr>
<th>Item</th>
<th>1194d Brooch</th>
<th>1403d Step end</th>
<th>1403d Step end</th>
<th>1403d Round brooch</th>
<th>1403d Bead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horn Grete</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needlecase</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridle Bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AM</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cheek</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooves</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridge</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weight</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weightone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spk</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sleigh</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sleigh</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fillipaper</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fire Starter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Plate number</td>
<td>Other</td>
<td>Comb</td>
<td>Fire starter</td>
<td>Flint/gasper Stone</td>
<td>Sickle</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>------</td>
<td>--------------</td>
<td>-------------------</td>
<td>--------</td>
</tr>
<tr>
<td>1995-364</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1995-364</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1995-364</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1995-364</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1995-364</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>Sylla</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Eyrtåtigur 1985-367</td>
<td>N.M ul.</td>
<td>Brand</td>
<td>2.1x1.2</td>
<td>Amber</td>
<td>NA</td>
</tr>
<tr>
<td>Eyrtåtigur 1985-9</td>
<td>N.M ul.</td>
<td>Disc</td>
<td>4x2.8</td>
<td>Amber</td>
<td>NA</td>
</tr>
<tr>
<td>Björk 12736</td>
<td>Eija</td>
<td>Brand necklace</td>
<td>14.5x1.85</td>
<td>Glass, Amber</td>
<td>NA</td>
</tr>
<tr>
<td>Snehavm mur 3928</td>
<td>S.M ul.</td>
<td>Oval Brooch</td>
<td>9.8x7</td>
<td>Copper alloy</td>
<td>Jalling</td>
</tr>
<tr>
<td>Snehavm mur 3929</td>
<td>S.M ul.</td>
<td>Oval brooch</td>
<td>10.3x5.2</td>
<td>Copper alloy</td>
<td>Jalling</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Snaellvammmur 3930</td>
<td>S.M</td>
<td>Trefol</td>
<td>6.1/4.8</td>
<td>Copper</td>
<td>Hollow</td>
</tr>
<tr>
<td>Gamla Berjanes 6411a</td>
<td>R</td>
<td>Oval brooch</td>
<td>10.2x6.3</td>
<td>Copper</td>
<td>Hollow</td>
</tr>
<tr>
<td>Gamla Berjanes 6411b</td>
<td>R</td>
<td>Oval brooch</td>
<td>10.6x7.2</td>
<td>Copper</td>
<td>Hollow</td>
</tr>
<tr>
<td>Björårdal ur 96a</td>
<td>A</td>
<td>Oval brooch</td>
<td>11.3x6.2</td>
<td>Copper</td>
<td>Hollow</td>
</tr>
<tr>
<td>Björårdal ur 96b</td>
<td>A</td>
<td>Oval brooch</td>
<td>11.3x6.2</td>
<td>Copper</td>
<td>Hollow</td>
</tr>
<tr>
<td>Item</td>
<td>Iron Age</td>
<td>Neolithic</td>
<td>Badger Teeth</td>
<td>Bird Bill</td>
<td>Avm</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>-----------</td>
<td>--------------</td>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td>Number</td>
<td>3330</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Trefoil brooch</td>
<td>0</td>
<td>Outlet brooch</td>
<td>0</td>
<td>6441b Oval brooch</td>
</tr>
<tr>
<td>Item</td>
<td>1852400</td>
<td>185240</td>
<td>1852400</td>
<td>185240</td>
<td>1852400</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>--------</td>
<td>---------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>Body</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Position of body</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sex</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Age</td>
<td>NA</td>
<td>NA</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Place of Grave</td>
<td>NA</td>
<td>NA</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Group</td>
<td>NA</td>
<td>NA</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Grave Type</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Country of Grave</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Topography</td>
<td>NA</td>
<td>NA</td>
<td>P62</td>
<td>P61</td>
<td>P52</td>
</tr>
<tr>
<td>Art design</td>
<td>Bone</td>
<td>Bone</td>
<td>Bone</td>
<td>Bone</td>
<td>Bone</td>
</tr>
<tr>
<td>Chamfer</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Material</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
</tr>
<tr>
<td>Dimens.</td>
<td>1.16 x 7.4</td>
<td>3.2 x 3.8</td>
<td>3.2 x 3.8</td>
<td>3.2 x 3.8</td>
<td>3.2 x 3.8</td>
</tr>
<tr>
<td>Book</td>
<td>Coral brooch</td>
<td>Coral</td>
<td>Coral</td>
<td>Coral</td>
<td>Coral</td>
</tr>
<tr>
<td>Jewellery</td>
<td>Pendants</td>
<td>A. H.</td>
<td>N.M.</td>
<td>12439</td>
<td>N.M.</td>
</tr>
<tr>
<td>Scheme</td>
<td>A</td>
<td>A</td>
<td>N.M.</td>
<td>12439</td>
<td>N.M.</td>
</tr>
<tr>
<td>Plan number</td>
<td>Other</td>
<td>Comb</td>
<td>Fire starter</td>
<td>Flint/jasper</td>
<td>Stone</td>
</tr>
<tr>
<td>-------------</td>
<td>-------</td>
<td>------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td>97</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>371 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12436</td>
<td>1</td>
<td>2</td>
<td>frag</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12436a Oval brooch</td>
<td>1</td>
<td>2</td>
<td>frag</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>124358</td>
<td>1</td>
<td>2</td>
<td>frag</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
## Graves-12

<table>
<thead>
<tr>
<th>Site</th>
<th>Syll</th>
<th>Jewellery</th>
<th>Dimen.</th>
<th>Material</th>
<th>Craftsm.</th>
<th>Art design</th>
<th>Typology</th>
<th>Country of fab.</th>
<th>Grave type</th>
<th>Grave location</th>
<th>Character of Grave</th>
<th>Age</th>
<th>Sex</th>
<th>Position of body</th>
<th>Animals</th>
<th>Sword</th>
<th>Spear</th>
<th>Axe</th>
<th>Knife</th>
<th>Sword chape</th>
<th>Gaming pieces</th>
<th>Spindle whorl</th>
<th>Weaving tool</th>
<th>Shears</th>
<th>Soapstone vessel</th>
<th>Iron kettle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ketilstaður</td>
<td>N.M.</td>
<td>Bead</td>
<td>22x1.5</td>
<td>Amber</td>
<td>Glass, let?</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
<td>S</td>
<td>A</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Karines</td>
<td>R</td>
<td>Bead</td>
<td>2.3x2.3</td>
<td>Amber</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
<td>S</td>
<td>A</td>
<td>M</td>
<td>SE NW</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Karines</td>
<td>R</td>
<td>Bead</td>
<td>1.2x1.2</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
<td>S</td>
<td>A</td>
<td>M</td>
<td>SE NW</td>
<td>NA</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Karines</td>
<td>R</td>
<td>Bead</td>
<td>2.8x2.7</td>
<td>Glass?</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
<td>S</td>
<td>A</td>
<td>M</td>
<td>SE NW</td>
<td>NA</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Våg 4340</td>
<td>S.</td>
<td>Round brooch</td>
<td>3.8x3.6</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>BA</td>
<td>GF</td>
<td>S</td>
<td>A</td>
<td>M</td>
<td>NA</td>
<td>NS</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item</td>
<td>Item2</td>
<td>Item3</td>
<td>Item4</td>
<td>Item5</td>
<td>Item6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron Fridge</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walkthroughs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle BR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AWL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chess</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoof</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cane</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belay</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weigher</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spire</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sickle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fence</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Starter</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item number</th>
<th>Item1</th>
<th>Item2</th>
<th>Item3</th>
<th>Item4</th>
<th>Item5</th>
<th>Item6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1237</td>
<td>Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11358</td>
<td>Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11359</td>
<td>Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11357</td>
<td>Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4340</td>
<td>Round brooch with chains</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>S. Mul</td>
<td>Round brooch</td>
<td>2.924.9</td>
<td>Silver</td>
<td>A</td>
<td>Mammal</td>
</tr>
<tr>
<td>Stora-Sandfell 256822</td>
<td>S. Mul</td>
<td>Bead</td>
<td>1.140.7</td>
<td>Glass</td>
<td>A</td>
<td>NA</td>
</tr>
<tr>
<td>Stora-Sandfell 256823</td>
<td>S. Mul</td>
<td>Bead</td>
<td>0.806.4</td>
<td>Glass</td>
<td>A</td>
<td>NA</td>
</tr>
<tr>
<td>Ytri-Tjarnir 14317</td>
<td>Eyja</td>
<td>Round brooch</td>
<td>2.528.8</td>
<td>Copper alloy</td>
<td>A</td>
<td>Burra</td>
</tr>
<tr>
<td>Kroppur 4888a</td>
<td>Eyja</td>
<td>Ringer pin</td>
<td>9.250.35</td>
<td>Copper alloy</td>
<td>C</td>
<td>NA</td>
</tr>
<tr>
<td>Item</td>
<td>238821 Round brooch</td>
<td>258622 Bead</td>
<td>258623 Bead</td>
<td>14317 Round brooch</td>
<td>4883a Ringed pin</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Iron fig</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Nails/heads</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Saddles</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Blanket</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hoops</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Combs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Spig</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sickle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Finger plate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>File sheer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Iron helmet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vessel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Soapstone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shee   r</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ge</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Weaving</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ambute</td>
<td>NA</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
</tbody>
</table>

Dimensions:

- Body position: NA, NS
- Sex: F, M
- Age: F, P, S
- Character of grave: C, G, S, F
- Grave type: I
- Country of grave: UK, SC, SC, SC
- Topography: NA, Pd, Pd, Pd
- Art design: Bone, Bone, Bone
- Carving: A, A, A
- Material: Copper, Copper, Copper, Copper
- Diameter: 6.5 cm, 10 cm, 10 cm
- Jewelry: Ring, Bone, Bone, Bone
- Siele: E, D.

Graves-14
<table>
<thead>
<tr>
<th>Plasma number</th>
<th>Other</th>
<th>Comb</th>
<th>Fire starter</th>
<th>Flint/soapstone</th>
<th>Sickle</th>
<th>Sprit</th>
<th>Whetstone</th>
<th>Weights</th>
<th>Loom weights</th>
<th>Balance</th>
<th>Colla</th>
<th>Hooks</th>
<th>Chisel</th>
<th>Awl</th>
<th>Bridle bit</th>
<th>Saddle fitting</th>
<th>Nails/heads</th>
<th>Iron frag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stap end</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>156911a</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Oval brooch</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>156912b</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Oval brooch</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>156915</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Ringed pln</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>156913</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

452
<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron差别</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vessel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vessel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Helmet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Helmet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Armament</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>H</td>
<td>H</td>
<td>0</td>
</tr>
<tr>
<td>Dimensions</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Position of</td>
<td>NA</td>
<td>NE</td>
<td>W</td>
<td>NE</td>
<td>W</td>
<td>NE</td>
</tr>
<tr>
<td>Position of</td>
<td>NA</td>
<td>NE</td>
<td>W</td>
<td>NE</td>
<td>W</td>
<td>NE</td>
</tr>
<tr>
<td>Sex</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Age</td>
<td>A</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Character</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
</tr>
<tr>
<td>Character</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
</tr>
<tr>
<td>Grave Type</td>
<td>EE</td>
<td>I</td>
<td>EE</td>
<td>I</td>
<td>EE</td>
<td>I</td>
</tr>
<tr>
<td>Country of</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
</tr>
<tr>
<td>Country of</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
</tr>
<tr>
<td>Typology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Typology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Rank Design</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Rank Design</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Charm</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Charm</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Material</td>
<td>Silver alloy</td>
<td>Copper alloy</td>
<td>Silver plate</td>
<td>Copper alloy</td>
<td>Silver plate</td>
<td>Copper alloy</td>
</tr>
<tr>
<td>Material</td>
<td>Silver alloy</td>
<td>Copper alloy</td>
<td>Silver plate</td>
<td>Copper alloy</td>
<td>Silver plate</td>
<td>Copper alloy</td>
</tr>
<tr>
<td>1.4x1.2</td>
<td>2.8x2.6</td>
<td>4.1x1.6</td>
<td>2.5x2.5</td>
<td>4.1x1.6</td>
<td>2.8x2.6</td>
<td>4.1x1.6</td>
</tr>
<tr>
<td>1.4x1.2</td>
<td>2.8x2.6</td>
<td>4.1x1.6</td>
<td>2.5x2.5</td>
<td>4.1x1.6</td>
<td>2.8x2.6</td>
<td>4.1x1.6</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
<td>Belt buckle</td>
</tr>
<tr>
<td>Size</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Site</td>
<td>169916</td>
<td>169914</td>
<td>169917</td>
<td>169914</td>
<td>169917</td>
<td>169914</td>
</tr>
<tr>
<td>Site</td>
<td>169916</td>
<td>169914</td>
<td>169917</td>
<td>169914</td>
<td>169917</td>
<td>169914</td>
</tr>
<tr>
<td>Altitude</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
</tr>
<tr>
<td>Altitude</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
<td>1013</td>
</tr>
<tr>
<td>Kepa &amp;</td>
<td>um 60908a</td>
<td>um 60908a</td>
<td>um 60908a</td>
<td>um 60908a</td>
<td>um 60908a</td>
<td>um 60908a</td>
</tr>
<tr>
<td>Pjama number</td>
<td>Other</td>
<td>Comb</td>
<td>File starter</td>
<td>Flint/jasper stone</td>
<td>Sickle</td>
<td>Spat</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>------</td>
<td>-------------</td>
<td>-------------------</td>
<td>--------</td>
<td>-----</td>
</tr>
<tr>
<td>156916</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bracelet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>156914</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bead necklace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>156917</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Belt clasp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13473 Belt buckle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9089a Button</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>Sylos</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
<td>Art design</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>--------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>Kåpa á Almenning um 9089b</td>
<td>R</td>
<td>Button</td>
<td>1.4x1.1</td>
<td>Silver wire</td>
<td>A</td>
<td>NA</td>
</tr>
<tr>
<td>Kåpa á Almenning um 9089c</td>
<td>R</td>
<td>Button</td>
<td>1.4x1</td>
<td>Silver wire</td>
<td>A</td>
<td>NA</td>
</tr>
<tr>
<td>Kåpa á Almenning um 11556</td>
<td>R</td>
<td>Button</td>
<td>1.6x1.6</td>
<td>Gold wire</td>
<td>F</td>
<td>NA</td>
</tr>
<tr>
<td>Kåpa á Almenning um 11557</td>
<td>R</td>
<td>Belt buckle</td>
<td>2.8x1.95</td>
<td>Copper alloy</td>
<td>A</td>
<td>NA</td>
</tr>
<tr>
<td>Skogar I Flakadal 5030a</td>
<td></td>
<td>Oval brooch</td>
<td>10.6x5.5</td>
<td>Copper alloy</td>
<td>C</td>
<td>NA</td>
</tr>
</tbody>
</table>
## Graves-17

<table>
<thead>
<tr>
<th>Site</th>
<th>Site</th>
<th>Syllab</th>
<th>Jewellery</th>
<th>Dimen.</th>
<th>Material</th>
<th>Craftsm.</th>
<th>Art design</th>
<th>Typology</th>
<th>Country of</th>
<th>Grave</th>
<th>Grave</th>
<th>Character</th>
<th>Position of</th>
<th>Dimensions</th>
<th>Animals</th>
<th>Sword</th>
<th>Spear</th>
<th>Axe</th>
<th>Knife</th>
<th>Shield</th>
<th>Sword</th>
<th>Shoe</th>
<th>Galea</th>
<th>Spindle</th>
<th>Weaving</th>
<th>Shears</th>
<th>Soapstone</th>
<th>Vessel</th>
<th>Iron kettle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skogar 5030b</td>
<td>Borg</td>
<td>?</td>
<td>Oval</td>
<td>9.2x5.6</td>
<td>Copper</td>
<td>NA</td>
<td>P24</td>
<td>NA</td>
<td>SC</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Granagil 5218</td>
<td>V. Skaf</td>
<td>Disc pendant</td>
<td>3.3x2.65</td>
<td>A</td>
<td>Copper alloy</td>
<td>SC</td>
<td>Jelling</td>
<td>SC</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Granagil 5217a</td>
<td>V. Skaf</td>
<td>Disc pendant</td>
<td>2.6x3.1</td>
<td>A</td>
<td>NA</td>
<td>P158</td>
<td>Jelling</td>
<td>SC</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Granagil 5217b</td>
<td>V. Skaf</td>
<td>Disc pendant</td>
<td>3.2x2.5</td>
<td>A</td>
<td>NA</td>
<td>P158</td>
<td>Jelling</td>
<td>SC</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Granagil 5217c</td>
<td>V. Skaf</td>
<td>Disc pendant</td>
<td>Lost</td>
<td>NA</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item Type</td>
<td>56303</td>
<td>6518</td>
<td>6217a</td>
<td>6217b</td>
<td>6217c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron Tool</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needle/Threads</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle Fittings</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle Bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Files</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skirts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helmets</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edges</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whips</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whips</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spikes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shields</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flint/Iron</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File/Sander</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td>Sysla</td>
<td>Jewellery</td>
<td>Dinen.</td>
<td>Material</td>
<td>Craftsm.</td>
<td>Art design</td>
<td>Typology</td>
<td>Country of site</td>
<td>Grave type</td>
<td>Grave location</td>
<td>Character of Grave</td>
<td>Age</td>
<td>Sex</td>
<td>Position of body</td>
<td>Dimensions</td>
<td>Animals</td>
<td>Sword</td>
<td>Spear</td>
<td>Axe</td>
<td>Knife</td>
<td>Shield</td>
<td>Sword Chase</td>
<td>Goring Pinch</td>
<td>Spindle Mort</td>
<td>Weaving</td>
<td>Spindle</td>
<td>Shears</td>
<td>Soapstone</td>
<td>Vessel</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>------------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
<td>----------</td>
<td>---------------</td>
<td>------------</td>
<td>---------------</td>
<td>-------------------</td>
<td>-----</td>
<td>-----</td>
<td>----------------</td>
<td>------------</td>
<td>---------</td>
<td>-------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>--------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Granagil 6419</td>
<td>V, Skaf</td>
<td>Tongue brooch</td>
<td>Lead</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granagil 5219</td>
<td>V, Skaf</td>
<td>Bead necklace</td>
<td>3.6x0.6</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granagil 4065</td>
<td>V, Skaf</td>
<td>Bead</td>
<td>0.9x0.5</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>H</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaldárhof 11335</td>
<td>A</td>
<td>Sword</td>
<td>13.2x0.4</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>BB</td>
<td>I</td>
<td>D</td>
<td>JIA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>NA</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaldárhof 1</td>
<td>A</td>
<td>Belt buckle</td>
<td>7.8x3.5</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>BB</td>
<td>I</td>
<td>D</td>
<td>JIA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>NA</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>?</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron hinge</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk bottles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seddy irons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hook</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cane</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bale rope</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whistlebone</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stick</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scythe</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plumezier</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File scraper</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td>Sysla</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
<td>Art design</td>
<td>Typology</td>
<td>Country of</td>
<td>Grave type</td>
<td>Grave location</td>
<td>Character</td>
<td>Age</td>
<td>Sex</td>
<td>Position of body</td>
<td>Dimensions</td>
<td>Animalia</td>
<td>Sword</td>
<td>Spear</td>
<td>Axe</td>
<td>Knife</td>
<td>Shield</td>
<td>Sword</td>
<td>Sword</td>
<td>Shaft</td>
<td>Gaming</td>
<td>Harpoons</td>
<td>Spindle</td>
<td>Weaving</td>
<td>Sheep</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
<td>----------</td>
<td>------------</td>
<td>------------</td>
<td>---------------</td>
<td>-----------</td>
<td>------</td>
<td>-----</td>
<td>----------------</td>
<td>------------</td>
<td>----------</td>
<td>-------</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>--------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>--------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Kaldárhófós 13541</td>
<td>A</td>
<td>Strip and pendant</td>
<td>5.2x2.3</td>
<td>Copper alloy</td>
<td>F</td>
<td>CE</td>
<td>BB</td>
<td>I</td>
<td>D</td>
<td>J/A</td>
<td>NA</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>280x80</td>
<td>NA</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silastadir 13725</td>
<td>Eyja</td>
<td>Bead and glass</td>
<td>2.8x1.9</td>
<td>Iron/glass</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>E</td>
<td>M</td>
<td>S</td>
<td>SW</td>
<td>NE</td>
<td>100x50</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silastaðir 13722</td>
<td>Eyja</td>
<td>Bead and wire</td>
<td>1.2x0.15</td>
<td>Silver</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>E</td>
<td>M</td>
<td>S</td>
<td>SW</td>
<td>NE</td>
<td>100x50</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Silastaðir 13726</td>
<td>Eyja</td>
<td>Pessuarian brooch</td>
<td>15.6x0.4</td>
<td>Iron</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>A7</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>E</td>
<td>M</td>
<td>S</td>
<td>SW</td>
<td>100x50</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hafurbjarnarmastaðir 559</td>
<td>G.K.</td>
<td>Sword and chape</td>
<td>8.2x4.2</td>
<td>Copper alloy</td>
<td>A</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>D</td>
<td>J/A</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>H</td>
<td>125x440</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
## Graves-20

<table>
<thead>
<tr>
<th>Site</th>
<th>Syila</th>
<th>Jewellery</th>
<th>Dimen.</th>
<th>Material</th>
<th>Craftsm.</th>
<th>Art design</th>
<th>Typology</th>
<th>Country of Fab.</th>
<th>Grave type</th>
<th>Grave location</th>
<th>Character of Grave</th>
<th>Age</th>
<th>Sex</th>
<th>Position of body</th>
<th>Dimensions</th>
<th>Animals</th>
<th>Sword</th>
<th>Spear</th>
<th>Axe</th>
<th>Knife</th>
<th>Shield</th>
<th>Sword blades</th>
<th>Gaming</th>
<th>Spindle</th>
<th>Weaving</th>
<th>Skull</th>
<th>Shears</th>
<th>Soapstone</th>
<th>Vessel</th>
<th>Iron kettle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hafurbjarm</td>
<td>G.K.</td>
<td>Sword hilt</td>
<td>17.5x11.1</td>
<td>Copper</td>
<td>Jelling</td>
<td>P114</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>D</td>
<td>J/A</td>
<td>NA</td>
<td>E</td>
<td>W</td>
<td>125x440</td>
<td>DR H</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Reykjasel 7686</td>
<td>N.M ul</td>
<td>Bead necklace</td>
<td>17x2.5</td>
<td>Amber, slats, cow</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reykjasel 4668</td>
<td>N.M ul</td>
<td>Bead necklace</td>
<td>17x2.1</td>
<td>Amber, slats, cow</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>E</td>
<td>F</td>
<td>NA</td>
<td>NS</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reykjasel 4872</td>
<td>N.M ul</td>
<td>Oval brooch</td>
<td>10.6x7</td>
<td>Copper</td>
<td>Bone</td>
<td>P51e</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>E</td>
<td>F</td>
<td>NA</td>
<td>NS</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rangé 12384</td>
<td>R</td>
<td>Pendant</td>
<td>4.2x2.1</td>
<td>Copper</td>
<td>Bone/Jelling</td>
<td>P184</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

463
<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron ring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle/eye</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hackam</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hoof</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Groom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tail</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weighing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Equestrian</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Broom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>698 Sand</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7689 Bead necklace</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4684 Bead necklace</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4872 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1234 Pendant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>alphabetical</td>
<td>alphabetical</td>
<td>alphabetical</td>
<td>alphabetical</td>
<td>alphabetical</td>
<td>alphabetical</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Typeology</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Art Design</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cream</td>
<td>A</td>
<td>NA</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Material</td>
<td>Glass</td>
<td>Rock crystal</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Diameter</td>
<td>0.6x0.8</td>
<td>1x1.2</td>
<td>0.7x0.7</td>
<td>2.5x2.2</td>
<td>2.5x2.2</td>
<td>2.5x2.2</td>
</tr>
<tr>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
</tr>
<tr>
<td>Finger ring</td>
<td>Wire</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
</tr>
<tr>
<td>Belt buckle</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
<td>Bead</td>
</tr>
<tr>
<td>Jewellery</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grave</th>
<th>Sex</th>
<th>Age</th>
<th>Cemetery</th>
<th>Grab</th>
<th>Country of Origin</th>
<th>Alphabetical</th>
</tr>
</thead>
<tbody>
<tr>
<td>226</td>
<td>23</td>
<td>23</td>
<td>123</td>
<td>45</td>
<td>678</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Traced</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
</tr>
</thead>
<tbody>
<tr>
<td>1848</td>
<td>A</td>
<td>23</td>
<td>123</td>
<td>45</td>
<td>678</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Site Known</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
<th>Known</th>
</tr>
</thead>
<tbody>
<tr>
<td>1380</td>
<td>A</td>
<td>23</td>
<td>123</td>
<td>45</td>
<td>678</td>
<td>A</td>
</tr>
<tr>
<td>Item</td>
<td>Number 1948</td>
<td>Number 13881</td>
<td>Number 13876</td>
<td>Number 13879</td>
<td>Number 13880</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Iron flag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Nameplate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Bridle bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hoops</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Cane</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Balance race</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Weights</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Spur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Side piece</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Flint/steel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Fire starter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Number of items: 466
<p>| Site          | Sylla | Jewellery  | Dimen. | Material | Craftsm. | Art design | Typology | Country of Inv. | Grave type | Grave Style | Character of Grave | Age | Sex | Position of body | Dimen. | Animals | Sword | Spear | Axe | Knife | Shield | Sword Chute | Gaming Dice | Spear Chute | Shield Short | Weaving | Shawl | Stamp | Soapstone Vessel | Iron kettle |
|--------------|-------|------------|--------|----------|----------|------------|----------|---------------|------------|--------------|-------------------|-----|-----|-----------------|--------|---------|-------|-------|-----|-------|--------|----------|------------|-----------|-----------|-------------|---------|-------|------|-----------------|-------------|
| Skaga        | Oval brooch | 11.1x7.4 | Copper alloy | C | NA | P55 | SC | I | I | NA | NA | NA | NA | NA | NA | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
| Skaga        | Finger ring | 3.2x0.15 | Silver | C | NA | NA | NA | I | GF | S | NA | NA | SE | NW | NA | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
| Eyja         | Oval brooch | 10.9x6.2 | Copper alloy | F | Bone | P51b | SC | I | GF | S | E | NA | SW | NE | H | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0       |
| Eyja         | Bead necklace | 7.3x2.4 | Copper alloy | A | NA | NA | SC | I | GF | S | E | M? | SW | NE | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
| Eyja         | Bead necklace | 5.5x1.5 | Rock Crystal | A | NA | NA | SC | I | GF | S | NA | NA | SW | NE | H | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>0</th>
<th>3</th>
<th>7</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron ring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle/ten</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Thistles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>pods</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pistel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>hooks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>spiles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Combs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Scissors</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File/upper</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File/starter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Combs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>12115</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Finger ring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>650</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>6837 Bead necklace</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>6972</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Bead necklace</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item Code</td>
<td>Ton Hede</td>
<td>Spear</td>
<td>Sword</td>
<td>Shield</td>
<td>Knife</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Dimensions:**
- **Body Position of:**
  - NE
  - SW
- **Sex:**
  - E
  - F
- **Age:**
  - E
- **Character:**
  - S
- **Grave Location:**
  - GF
- **Grave Type:**
  - S
- **Country of Origin:**
  - NA

**Artifact Details:**
- **Material:**
  - Bone
  - Copper alloy
- **Dimensions:**
  - 3.75x2.2
- **Jewelry:**
  - Headband
  - Bronze loop

**Site:**
- **Yttr- Gardeshom 1985-89**
- **Yttr- Gardeshom 1995-90**
- **Yttr- Gardeshom 1995-91**
- **Yttr- Gardeshom 1995-100**
- **Onderdriem 1965-128**

**Spela:**
- **Eylja**
- **Eylja**
- **Eylja**
- **Eylja**
- **S.H.**

**Notes:**
- NA
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone fillet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone pipe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone pin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone point</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone ring</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone spur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone tile</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone tool</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone tube</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone whistle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Iron Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Soapstone Vessel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sheer</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Welsh Working Spindle Piece</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ceramic Stem</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Animal</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>H</td>
<td>H</td>
</tr>
</tbody>
</table>

<p>| Dimensions | NA | NA | NA | NA | NA | NA |
| Body Position | E | W | NA | NA | NA | NA |
| Sex | E | F | NA | NA | NA | NA |
| Age | E | F | NA | NA | NA | NA |
| Character of Grave | S | S | S | S | S | S |
| Grave Location | GF | GF | GF | GF | GF | GF |
| Grave Type | SC | I | SC | I | SC | I |
| Tomb of Country of Origin | SC | I | SC | I | SC | I |
| Typology | NA | P51 | NA | NA | P51 | NA |
| Art Design | Bone | Bone | Bone | Bone | Bone | Bone |
| Charnel | C | F | A | F | A | F |
| Material | Copper Alloy | Copper Alloy | Bronze, Clay | Copper Alloy | Copper Alloy | Bronze, Clay |
| Jewelry | Bracelet | Earring | Bead | Earring | Bead | Earring |
| Seal | V | A.H. | A | A | A | A |
| Site | St. Andrews 1982 | St. Andrews 1982 | Milheath 6464 | Milheath 6464 | Milheath 6464 | Milheath 6464 |</p>
<table>
<thead>
<tr>
<th>Plan number</th>
<th>Other</th>
<th>Comb</th>
<th>Fire starter</th>
<th>Flint/asper</th>
<th>Stone</th>
<th>Sickle</th>
<th>Spat</th>
<th>Wheatsheaf</th>
<th>Weights</th>
<th>Loom weights</th>
<th>Balance scale</th>
<th>Coils</th>
<th>Hooks</th>
<th>Chisel</th>
<th>Awl</th>
<th>Bridle bit</th>
<th>Saddle fixtures</th>
<th>Nails</th>
<th>Iron frag</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992 Bracelet</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3419 Oval brooch</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6464 Bead necklace</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6461a Oval brooch</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6461b Oval brooch</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>Spela</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
<td>Art design</td>
<td>Typology</td>
<td>Country of fab.</td>
<td>Grave type</td>
<td>Grave location</td>
<td>Character of Grave</td>
<td>Age</td>
<td>Sex</td>
<td>Position of body</td>
<td>Dimenstone</td>
<td>Animals</td>
<td>Sword</td>
<td>Spear</td>
<td>Axe</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
<td>----------</td>
<td>-----------------</td>
<td>------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----------------</td>
<td>------------</td>
<td>---------</td>
<td>-------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>Miklaholt 6463</td>
<td>A</td>
<td>Round brooch</td>
<td>2.6 x 2.8</td>
<td>Copper alloy</td>
<td>Jelling</td>
<td>NA</td>
<td>SC</td>
<td>i</td>
<td>GF</td>
<td>S</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Miklaholt 6462</td>
<td>A</td>
<td>Trefoil brooch</td>
<td>5.2 x 4.5</td>
<td>Copper alloy</td>
<td>Bone</td>
<td>P07</td>
<td>SC</td>
<td>i</td>
<td>GF</td>
<td>S</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hrifunes 191082</td>
<td>V. Skaf</td>
<td>Bead necklace</td>
<td>11 x 0.6</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>A</td>
<td>A</td>
<td>F</td>
<td>SE</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Alfsaðir 4052</td>
<td>A</td>
<td>Bead necklace</td>
<td>3.6 x 1.55</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>14 x 0.6</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Surt sites 14094</td>
<td>N.M. ul</td>
<td>Bead necklace</td>
<td>10.8 x 0.6</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>A</td>
<td>A</td>
<td>M</td>
<td>S</td>
<td>NE</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

473
<table>
<thead>
<tr>
<th>Item</th>
<th>0463 Round brooch</th>
<th>0462 Trefoil brooch</th>
<th>0105 beads, necklace</th>
<th>4032 Bead necklace</th>
<th>1034 Bead necklace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needleheater</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needleheater</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Elbow pit</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arm</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chest</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooke</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Combe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sceptre</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flannel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File stitch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Site</td>
<td>Saya</td>
<td>Jewellery</td>
<td>Dimen.</td>
<td>Material</td>
<td>Craftsm.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-------------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Brennistaður 14345</td>
<td>S.M</td>
<td>Bead necklace</td>
<td>2.2 x 2</td>
<td>Glass</td>
<td>A</td>
</tr>
<tr>
<td>Sturlufotur 5588</td>
<td>N.M</td>
<td>Bead</td>
<td>1.4 x 1.65</td>
<td>Glass</td>
<td>A</td>
</tr>
<tr>
<td>Selafoss 1982-112</td>
<td>A</td>
<td>Bead necklace</td>
<td>5.4 x 1.5</td>
<td>Amber, glass</td>
<td>A</td>
</tr>
<tr>
<td>Selafoss 1982-116</td>
<td>A</td>
<td>Finger ring</td>
<td>1.5 x 1.5</td>
<td>Silver</td>
<td>A</td>
</tr>
<tr>
<td>Oxnadalshøi 1962-204</td>
<td>Ska</td>
<td>Bead necklace</td>
<td>1.2 x 0.85</td>
<td>Glass</td>
<td>A</td>
</tr>
<tr>
<td>Sample Number</td>
<td>Other</td>
<td>Comb</td>
<td>Fire starter</td>
<td>Flint/jasper</td>
<td>Stone</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>------</td>
<td>--------------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>14345 Bead necklace</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5588 Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1962-112 Bead necklace</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1962-116 Finger ring</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1962-204 Bead necklace</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Oxnadals Holmes 1962-200</td>
<td>Ska</td>
<td>Button</td>
<td>NE(92)</td>
<td>Lead? Tin?</td>
<td>NA</td>
</tr>
<tr>
<td>Holaskogur Porsárdal 1978-091</td>
<td>A</td>
<td>Bead</td>
<td>amber</td>
<td>8.3x2.2</td>
<td>amber</td>
</tr>
<tr>
<td>Ytra-Gårshorn 15489</td>
<td>A</td>
<td>Bead</td>
<td>amber</td>
<td>0.9x2.2</td>
<td>amber</td>
</tr>
<tr>
<td>Ytra-Gårshorn 15489</td>
<td>E3ja</td>
<td>Bead</td>
<td>glass</td>
<td>1.5x1.6</td>
<td>Glass</td>
</tr>
<tr>
<td>Traderholt 1839</td>
<td>A</td>
<td>Bead</td>
<td>glass</td>
<td>11.7x0.8</td>
<td>glass</td>
</tr>
</tbody>
</table>

477
<table>
<thead>
<tr>
<th>Item</th>
<th>From Tag</th>
<th>18</th>
<th>14</th>
<th>7</th>
<th>7</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milieu/Views</td>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Texture</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bunk bed</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arm</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chair</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooks</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chrome</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bead</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spill</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stick</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Floorpaper</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>File extender</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comp</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frame number</th>
<th>Button (12)</th>
<th>149301 Bead necklace</th>
<th>15486 Bead</th>
<th>15489 Bead</th>
<th>1639 Bead necklace</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

478
<table>
<thead>
<tr>
<th>Item Group</th>
<th>13288 Bead necklace</th>
<th>5788 Bead</th>
<th>5426a Oval brooch</th>
<th>5426b Oval brooch</th>
<th>5428 Triangular brooch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron frag</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Needle/card</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bridle Bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Am</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hooze</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coke</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Beeline</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Loom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weighite</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Woolstone</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spil</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sickle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Faint cloth</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fire poker</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
### Graves-29

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Midhop 15560</td>
<td>V.H.</td>
<td>Oval brooch</td>
<td>10.46-6.7</td>
<td>Copper alloy</td>
<td>C</td>
<td>Bone</td>
<td>P516</td>
<td>SC</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Rutstaðir 12454</td>
<td>D</td>
<td>Oval brooch</td>
<td>9.5-9.5</td>
<td>Copper alloy</td>
<td>A</td>
<td>Bone</td>
<td>P517</td>
<td>SC</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dalei 1977-170</td>
<td>Eyja</td>
<td>Bone pin</td>
<td>9.45x1.35</td>
<td>Whale bone</td>
<td>C</td>
<td>NA</td>
<td>NA</td>
<td>I?</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>H</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hæmía 11334</td>
<td>R</td>
<td>Bead</td>
<td>NA</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>GF</td>
<td>S</td>
<td>J</td>
<td>NA</td>
<td>NS</td>
<td>NA</td>
<td>Hx 2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Knafsholr 99999991</td>
<td>R</td>
<td>Oval brooch</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item Type</td>
<td>15660</td>
<td>123456</td>
<td>1977-170</td>
<td>1934</td>
<td>698399</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>--------</td>
<td>----------</td>
<td>------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron flag</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matel/leaves</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle bit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ax</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chisel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hook</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crook</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belt</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loom</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheatsone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sickle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>15660</th>
<th>123456</th>
<th>1977-170</th>
<th>1934</th>
<th>698399</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bone pin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bead</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Item</td>
<td>Qty</td>
<td>Qty</td>
<td>Qty</td>
<td>Qty</td>
<td>Qty</td>
</tr>
<tr>
<td>--------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Iron Halter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vesel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Soapstone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sheath</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Earplug</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Washing Rod</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spindle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dice</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Game Piece</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Arrowhead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Dimensions

- Body: NA
- Position: NA
- Sex: NA
- Age: NA
- Cause of Death: NA
- Grave use: NA
- Grave Type: NA
- Country of Origin: NA
- Typology: NA
- Art Design: NA
- Card: NA
- Material: NA
- Dimen: NA
- Jewelry: NA

<table>
<thead>
<tr>
<th>Site</th>
<th>Burial No</th>
<th>Type</th>
<th>Strat</th>
<th>Context</th>
<th>39419 Coalinga</th>
<th>Other</th>
<th>Motounill 98999992</th>
<th>Baldurahel 98999994</th>
<th>Vlagolastra 98999994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graves-30</td>
<td>89999992</td>
<td>A.H.</td>
<td>39419</td>
<td>Coalinga</td>
<td>98999992</td>
<td>Other</td>
<td>Motounill 98999992</td>
<td>Baldurahel 9899994</td>
<td>Vlagolastra 9899994</td>
</tr>
<tr>
<td>Item</td>
<td>Iron Ring</td>
<td>2 Bead</td>
<td>3 Bead</td>
<td>4 Bead</td>
<td>No number</td>
<td>necklace (Copenhagen lost)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>-----------</td>
<td>---------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helmet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helmet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chuck</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoof</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girth</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sabot</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pesade</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheatsone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stirrer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saddle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stirrup</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File Strip</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vessel</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sporadone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weapons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spindle</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dice</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shield</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Axe</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spear</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sword</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amulet</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloves</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grave Type</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td>SC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomb</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artifact</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crown</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trim</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewelry</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sash</td>
<td>N.M.</td>
<td>N.M.</td>
<td>N.M.</td>
<td>N.M.</td>
<td>N.M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>She</td>
<td>66699966</td>
<td>66699966</td>
<td>66699966</td>
<td>66699966</td>
<td>66699966</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pjema number</td>
<td>Other</td>
<td>Comb</td>
<td>Fire starter</td>
<td>Flint/jasper Stone</td>
<td>Stick</td>
<td>Spilt</td>
<td>Weights</td>
<td>Lead weights</td>
<td>Balance</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>------</td>
<td>--------------</td>
<td>-------------------</td>
<td>-------</td>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>99999999 5 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>99999999 6 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>99999999 7 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>99999999 8 Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>99999999 9 Round brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>-----------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
<td>----------</td>
<td>----------------</td>
<td>------------</td>
</tr>
<tr>
<td>Holmur 999999910</td>
<td>A. Skaf</td>
<td>NA</td>
<td>NA</td>
<td>Glass</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Einholt 1979</td>
<td>A. Skaf</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Flaga 2445a</td>
<td>V. Skaf</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Flaga 2445b</td>
<td>V. Skaf</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Flaga 999999911</td>
<td>V. Skaf</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>SC</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Item Type</td>
<td>10 Bead</td>
<td>1978 Bead</td>
<td>2445a Oval brooch</td>
<td>2445b Oval brooch</td>
<td>10 Bead necklace lost</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>-----------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978 Bead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2445a Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2445b Oval brooch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Bead necklace lost</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The table entries are all zeros.*
## Stray Finds

<table>
<thead>
<tr>
<th>Site name</th>
<th>System</th>
<th>Mnd No.</th>
<th>Mnd. number</th>
<th>Mnd.</th>
<th>Date</th>
<th>Frag</th>
<th>Place</th>
<th>PK</th>
<th>COMPLET</th>
<th>PK</th>
<th>COMPLET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalastaðir</td>
<td>Borg</td>
<td>7931</td>
<td>Oval brooch</td>
<td>10.9</td>
<td>6.9</td>
<td>Home field</td>
<td>F</td>
<td>Gilded copper alloy</td>
<td>Borre</td>
<td>P48</td>
<td>SC</td>
</tr>
<tr>
<td>Mælifell, Reykjav</td>
<td>Skagi</td>
<td>245</td>
<td>Oval brooch</td>
<td>11.1</td>
<td>7.2</td>
<td>Eroded area</td>
<td>C</td>
<td>Gilded copper alloy</td>
<td>Borre</td>
<td>P48</td>
<td>SC</td>
</tr>
<tr>
<td>Tjaldbrekka</td>
<td>D</td>
<td>2576</td>
<td>Oval brooch</td>
<td>9.3</td>
<td>7.1</td>
<td>NA</td>
<td>C</td>
<td>Copper alloy</td>
<td>Borre</td>
<td>P51k?</td>
<td>SC</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>10912</td>
<td>Oval brooch</td>
<td>10.6</td>
<td>7.2</td>
<td>NA</td>
<td>C</td>
<td>Copper alloy</td>
<td>Jelling</td>
<td>P55</td>
<td>SC</td>
</tr>
<tr>
<td>Norðurbsáradalur</td>
<td>Borg</td>
<td>290</td>
<td>Oval brooch</td>
<td>9.2</td>
<td>5.6</td>
<td>Mountain top</td>
<td>A</td>
<td>Gilded copper alloy</td>
<td>Borre</td>
<td>P51c</td>
<td>SC</td>
</tr>
<tr>
<td>Stora Nupi</td>
<td>R</td>
<td>9332</td>
<td>Trefoil brooch</td>
<td>5.3</td>
<td>6.8</td>
<td>Eroded area</td>
<td>F</td>
<td>Gilded copper alloy</td>
<td>Borre</td>
<td>P100</td>
<td>SC</td>
</tr>
<tr>
<td>Vogur</td>
<td>NA</td>
<td>13</td>
<td>Ring</td>
<td>3</td>
<td>3</td>
<td>Eroding sand bank</td>
<td>C</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Steinsholt</td>
<td>A</td>
<td>10594</td>
<td>Ringed pin</td>
<td>7.4</td>
<td>0.6</td>
<td>Eroded area</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Höll N.Mul</td>
<td>10696</td>
<td>Trefoil brooch</td>
<td>4.6</td>
<td>4.8</td>
<td>Eroded hillock</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Knafholar</td>
<td>R</td>
<td>3958</td>
<td>Sword</td>
<td>7.75</td>
<td>1.5</td>
<td>Near settlement</td>
<td>F</td>
<td>Iron, copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>UK</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>1969</td>
<td>Ringed pin</td>
<td>17.15</td>
<td>1.9</td>
<td>NA</td>
<td>C</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ring, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>Sandmuli I Kro.</td>
<td>S.P.</td>
<td>11902</td>
<td>Ringed pin</td>
<td>5.7</td>
<td>0.6</td>
<td>NA</td>
<td>C</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ring, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>Laxnes</td>
<td>G.K.</td>
<td>1836</td>
<td>Ringed pin</td>
<td>8.5</td>
<td>0.8</td>
<td>On hill or mound</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ring, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>Hestabingsholt</td>
<td>A</td>
<td>10906</td>
<td>Ringed pin</td>
<td>16.4</td>
<td>0.65</td>
<td>NA</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ring, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>Æingskalar</td>
<td>R</td>
<td>4239</td>
<td>Ringed pin</td>
<td>6.4</td>
<td>0.8</td>
<td>Ruins</td>
<td>F</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Fan shaped</td>
<td>UK</td>
</tr>
<tr>
<td>Hlaxir Eyla</td>
<td>13098</td>
<td>Ringed pin</td>
<td>15.45</td>
<td>1.55</td>
<td>Farm site</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Kidney ring</td>
<td>UK</td>
<td></td>
</tr>
<tr>
<td>Gnupvejafrettur</td>
<td>A</td>
<td>5396</td>
<td>Ringed pin</td>
<td>18.6</td>
<td>0.5</td>
<td>NA</td>
<td>F</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ringed, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>99999992</td>
<td>Ringed pin</td>
<td>15.7</td>
<td>0.3</td>
<td>NA</td>
<td>A</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Plain ringed, polyhedral</td>
<td>UK</td>
</tr>
<tr>
<td>Ynjæberg</td>
<td>S.H.</td>
<td>11296</td>
<td>Bone pin</td>
<td>16.3</td>
<td>1.4</td>
<td>NA</td>
<td>C</td>
<td>Bone</td>
<td>NA</td>
<td>NA</td>
<td>UK</td>
</tr>
<tr>
<td>Sandmuli I Kro.</td>
<td>S.P.</td>
<td>5884</td>
<td>Pena. brooch</td>
<td>7.5</td>
<td>0</td>
<td>NA</td>
<td>F</td>
<td>Silver</td>
<td>Mammen</td>
<td>NA</td>
<td>UK</td>
</tr>
<tr>
<td>Gunnarskolt</td>
<td>R</td>
<td>358</td>
<td>Pena. brooch</td>
<td>5.2</td>
<td>4.7</td>
<td>Ruins of old farm</td>
<td>C</td>
<td>Copper alloy</td>
<td>NA</td>
<td>NA</td>
<td>B?</td>
</tr>
<tr>
<td>Austad Reysarvatn</td>
<td>R</td>
<td>6868</td>
<td>Pena. brooch</td>
<td>5.4</td>
<td>5.5</td>
<td>NA</td>
<td>C</td>
<td>Copper alloy</td>
<td>NA</td>
<td>Rygh 675,677</td>
<td>B?</td>
</tr>
<tr>
<td>Kalstaðir</td>
<td>NA</td>
<td>1962221</td>
<td>Bone pin</td>
<td>13.2</td>
<td>1</td>
<td>Farm site</td>
<td>C</td>
<td>Bone</td>
<td>NA</td>
<td>NA</td>
<td>I</td>
</tr>
<tr>
<td>Site</td>
<td>Type</td>
<td>Ref.</td>
<td>Date</td>
<td>Age</td>
<td>Find</td>
<td>Location</td>
<td>Material</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td>-------</td>
<td>-----------------</td>
<td>----------------</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ymjåberg</td>
<td>S-H. 11297</td>
<td>Bone pin</td>
<td>12.1</td>
<td>1.1</td>
<td>NA</td>
<td>Bone</td>
<td>Bone, rock crystal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mjösalur</td>
<td>M 10913</td>
<td>Bead</td>
<td>22</td>
<td>1.8</td>
<td>NA</td>
<td>Glass, rock crystal</td>
<td>Scania 5738-40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mjösalur</td>
<td>M 10914</td>
<td>Cufic coins</td>
<td>2.7</td>
<td>2.7</td>
<td>NA</td>
<td>Silver</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buland</td>
<td>S.Mul 3385</td>
<td>Bead</td>
<td>18.1</td>
<td>2.9</td>
<td>Outside home field</td>
<td>Glass, rock crystal</td>
<td>Scania B (Gotland?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kotmula</td>
<td>NA 196084</td>
<td>Spear head</td>
<td>12.5</td>
<td>1.8</td>
<td>River bank</td>
<td>Iron, silver, copper</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korekstäd</td>
<td>N.Mul 4195</td>
<td>Spear head,</td>
<td>15</td>
<td>2.1</td>
<td>Farm site</td>
<td>Iron, silver, copper</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerarskoga</td>
<td>D 190</td>
<td>Trefoil brooch</td>
<td>4.1</td>
<td>4.9</td>
<td>Between two farms</td>
<td>Copper alloy</td>
<td>Borr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Køldahl</td>
<td>NA 296</td>
<td>Beads (3)</td>
<td>1.5</td>
<td>0.5</td>
<td>Farm site</td>
<td>Glass</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Køldahl</td>
<td>NA 297</td>
<td>Bead</td>
<td>1.5</td>
<td>0.6</td>
<td>Farm site</td>
<td>Glass</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gautland</td>
<td>S.P. 6355</td>
<td>Round brooch</td>
<td>3</td>
<td>3</td>
<td>NA</td>
<td>Copper alloy</td>
<td>Scania 126a B?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kalafæli</td>
<td>V.Skaf 6976</td>
<td>Round brooch</td>
<td>3.5</td>
<td>3.5</td>
<td>Farm buildings</td>
<td>Copper alloy</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trollaskogi</td>
<td>R 6524</td>
<td>Brooch</td>
<td>3.9</td>
<td>3.6</td>
<td>NA</td>
<td>Silver</td>
<td>Urnes M 494</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skånebol</td>
<td>Borg 1593</td>
<td>Brooch</td>
<td>4</td>
<td>3.8</td>
<td>Hay field</td>
<td>Gilded, copper alloy</td>
<td>Urnes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Espholl</td>
<td>Skag 10891</td>
<td>Bracelet</td>
<td>8.1</td>
<td>5.8</td>
<td>Mound</td>
<td>Silver</td>
<td>Scania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fossa</td>
<td>A 6077</td>
<td>Thor hammer</td>
<td>5.1</td>
<td>2.9</td>
<td>Eroded area</td>
<td>Silver</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rangarvill</td>
<td>R 4609</td>
<td>Belt buckle</td>
<td>4</td>
<td>4</td>
<td>NA</td>
<td>Copper alloy</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nahal</td>
<td>NA 246</td>
<td>Belt buckle</td>
<td>4.8</td>
<td>4.8</td>
<td>NA</td>
<td>Copper alloy</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hanni</td>
<td>V 3376</td>
<td>Pena. brooch</td>
<td>2.5</td>
<td>2.5</td>
<td>Near a mountain</td>
<td>Copper alloy, gilding</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA NA 2033</td>
<td>Cross</td>
<td>4.4</td>
<td>4.4</td>
<td>NA</td>
<td>Silver</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lundf</td>
<td>S.P. 5251</td>
<td>Sword chape</td>
<td>5.7</td>
<td>4.1</td>
<td>Found in an eroded area</td>
<td>Copper alloy</td>
<td>Borr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kirkljubisdalur</td>
<td>Ls 3582</td>
<td>Sword chape</td>
<td>6.4</td>
<td>4.2</td>
<td>NA</td>
<td>Copper alloy</td>
<td>Jelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ljarskogar</td>
<td>D 6072</td>
<td>Sword chape</td>
<td>8.55</td>
<td>4.1</td>
<td>Farm field</td>
<td>Copper alloy</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tannsstaðabakk</td>
<td>V.H. 2756</td>
<td>Sword chape</td>
<td>7.55</td>
<td>4.25</td>
<td>Eroded area</td>
<td>Copper alloy</td>
<td>Jelling Rygh 516</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vestfirdir</td>
<td>NA 3048</td>
<td>Sword chape</td>
<td>6</td>
<td>4.1</td>
<td>NA</td>
<td>Copper alloy</td>
<td>Jelling Rygh 516 SC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Höfstaðir</td>
<td>S.P. 896</td>
<td>Thor hammer</td>
<td>3.8</td>
<td>1.9</td>
<td>Midden</td>
<td>Iron</td>
<td>NA I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA NA 4121982</td>
<td>Round brooch</td>
<td>3.2</td>
<td>3.3</td>
<td>NA</td>
<td>Copper alloy</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA NA 99999991</td>
<td>Sword chape</td>
<td>89</td>
<td>10.2</td>
<td>NA</td>
<td>Iron, copper</td>
<td>CE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA NA 99999991</td>
<td>Trefoil brooch</td>
<td>9</td>
<td>9.25</td>
<td>NA</td>
<td>Copper alloy</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kongsedal</td>
<td>NA 5988</td>
<td>Bead</td>
<td>2.1</td>
<td>0.7</td>
<td>Farm site</td>
<td>Amber</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Straumfjord</td>
<td>M 2616</td>
<td>Bead</td>
<td>2.2</td>
<td>2.4</td>
<td>Eroding from ground</td>
<td>Amber</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stokkseyri</td>
<td>A 2486</td>
<td>Bead</td>
<td>1.8</td>
<td>1.5</td>
<td>Farm site</td>
<td>Amber</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ytri-Vellir</td>
<td>A.H. 11580</td>
<td>Bead</td>
<td>1.8</td>
<td>0.9</td>
<td>Homefield</td>
<td>Amber</td>
<td>Na</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandmull</td>
<td>S.P. 5779</td>
<td>Bead</td>
<td>1</td>
<td>1</td>
<td>Eroded farm ruins</td>
<td>Bone</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

490
<table>
<thead>
<tr>
<th>Location</th>
<th>ID</th>
<th>Type</th>
<th>Material</th>
<th>Site Origin</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hrofsstaðahelir</td>
<td>NA 836</td>
<td>Bead</td>
<td>1.7 0.8 Farm site</td>
<td>A Soap stone</td>
<td>NA NA I</td>
</tr>
<tr>
<td>Hrofsstaðahelir</td>
<td>NA 835</td>
<td>Bead</td>
<td>0 0 Farm site</td>
<td>NA Glass</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Bægaardur S.P.</td>
<td>11704</td>
<td>Bead</td>
<td>1.9 1.1 Farm site</td>
<td>C Stone</td>
<td>NA NA I</td>
</tr>
<tr>
<td>Hómafördur A Skat</td>
<td>11472</td>
<td>Beadx 3</td>
<td>2.3 0.9 NA</td>
<td>C Clay?</td>
<td>NA NA I</td>
</tr>
<tr>
<td>Viðey G.K.</td>
<td>8957253</td>
<td>Oval brooch</td>
<td>0 6.2 NA</td>
<td>C Copper alloy</td>
<td>Borre P51 SC</td>
</tr>
<tr>
<td>Kaldarholt NA</td>
<td>295</td>
<td>Bead</td>
<td>1.9 0.6 Farm site</td>
<td>C Soap stone</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19801</td>
<td>Torque</td>
<td>13.9 0 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19802</td>
<td>Torque</td>
<td>12.7 0 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19803</td>
<td>Torque</td>
<td>9.5 0 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19804</td>
<td>Torque</td>
<td>14.35 0 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19805</td>
<td>Bracelet</td>
<td>11.2 2.3 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19806</td>
<td>Bracelet</td>
<td>9.5 4.1 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19807</td>
<td>Bracelet</td>
<td>9.35 3.9 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19808</td>
<td>Bracelet</td>
<td>5.8 9.3 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Möðhus S.Mul</td>
<td>19809</td>
<td>Pin</td>
<td>8.1 0.6 Silver hoard</td>
<td>A Silver</td>
<td>NA NA NA UK?</td>
</tr>
<tr>
<td>NA NA 99999991</td>
<td></td>
<td></td>
<td>13.5 0 NA</td>
<td>A Glass, rock crystal</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Stafn A.H.</td>
<td>11495</td>
<td>Beads</td>
<td>5.6 1.25 NA</td>
<td>A Copper alloy</td>
<td>Borre NA UK?</td>
</tr>
<tr>
<td>Búðarstaðir R</td>
<td>197752</td>
<td>Ringed pin</td>
<td>12.3 0 Farm site</td>
<td>C Copper alloy</td>
<td>Plain ring loop headed UK</td>
</tr>
<tr>
<td>Búðarstaðir R</td>
<td>19741150</td>
<td>Object?</td>
<td>0 2.4 Farm site</td>
<td>NA Gilded copper</td>
<td>NA NA UK</td>
</tr>
<tr>
<td>Reykjavik G.K.</td>
<td>695</td>
<td>Ring from</td>
<td>2.6 2.6 Long house</td>
<td>C Copper alloy</td>
<td>NA Lonzenge ring I</td>
</tr>
<tr>
<td>Reykjavik G.K.</td>
<td>435</td>
<td>Pendant</td>
<td>2.1 1.2 Farm site</td>
<td>C Copper alloy, tin or</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Reykjavik G.K.</td>
<td>291</td>
<td>Bone pin</td>
<td>4.99 0.75 Farm site</td>
<td>C Bone</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Höfstaðir S.P.</td>
<td>98125</td>
<td>Bone pin</td>
<td>8.6 5 Farm site</td>
<td>C Bone</td>
<td>NA NA NA I</td>
</tr>
<tr>
<td>Höfstaðir S.P.</td>
<td>98128</td>
<td>Bone pin</td>
<td>7.3 5 Farm site</td>
<td>C Bone</td>
<td>NA NA NA I</td>
</tr>
<tr>
<td>Höfstaðir S.P.</td>
<td>98127</td>
<td>Bone pin</td>
<td>6.1 0.6 Farm site</td>
<td>NA Bone</td>
<td>NA NA NA I</td>
</tr>
<tr>
<td>Höfstaðir S.P.</td>
<td>98133</td>
<td>Ringed pin</td>
<td>0 0 Farm site</td>
<td>NA Copper alloy</td>
<td>NA NA NA</td>
</tr>
<tr>
<td>Herjólfssdalur V 99999991</td>
<td>Ringed pin</td>
<td>0 0 Farm site</td>
<td>NA Copper alloy</td>
<td>NA NA NA</td>
<td></td>
</tr>
<tr>
<td>Hroarstaðir S.P.</td>
<td>5252</td>
<td>Ringed pin</td>
<td>6.8 0 Stray find</td>
<td>F Copper alloy, gilded</td>
<td>NA Polyhedral head UK</td>
</tr>
<tr>
<td>Armheiðarstaðir N.Mul</td>
<td>3406</td>
<td>Ringed pin</td>
<td>5.3 0.9 Stray find</td>
<td>A Copper alloy</td>
<td>NA NA UK</td>
</tr>
<tr>
<td>Stöng A</td>
<td>29101947</td>
<td>Ringed pin</td>
<td>0 0 Farm site</td>
<td>NA Copper alloy</td>
<td>NA NA NA</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY

Primary sources

Boyer, R.


Boyer, R.


Dennis A. & Foote P., Perkins, R.


Dillman, F.-X.


Larrington, C.


Magnússon, M. & Pálsson, H.


Magnússon, M. & Pálsson H.


Pálsson, H. & Edwards, P.


Hermannsson, H.

References cited

Aagård, G.

Aiken E. & Arwidsson, G.

Alcock, L.

Allen, R. E. (editor)

Ambrosiani, B.

Amorosi, T.

Amory, P.

Anderson, J.

Anzieu, D.

Arbman, H.
1949 Bika I: Die Gräber. Almqvist & Wiksells, Uppsala.

Armstrong, E. C. R.
Arthur, B. L. (editor)  

Arwidsson, G., & Berg, G.  

Arwill-Nordbladh, E.  

Avent, R.  

Bakka, E.  

Bakka, E.  
1971 Scandinavian Trade Relations with the Continent and the British Isles in Pre-Viking Times. Scandinavian Trade Relations with the Continent and the British Isles in Pre-Viking Times 40 Early Medieval Studies 3. Antikvarist Arkiv.

Barley, N.  

Barnes, R. & Eicher, J.B. (editor)  

Barth, F.  

Batey, C. E.  
1987 Freswick Links, Caithness: A Re-appraisal of the Late Norse Site in its Context Part ii. BAR British Series 179(ii), Oxford.

Batey, C.E.  
Batey, C.E.

Batey, C.E.

Bayley, J.

Benfoughal, T. (editor)

Bjorn, A. & Shetelig, H.

Björnsson, B.

Blindheim, C.

Blindheim, C.

Blindheim, C. & Heyerdahl-Larsen, B.; Tollnes, R.L.
Blindheim, C.

Botfeldt, K. & Brinch Madsen, H.

Bourdieu, P.

Boyer, R.

Boyer, R.

Bøe, J.

Brinch-Madsen, H.

Buckland, P. C. & Sadler, J.P.; Smith, D.N.

Buckland, P. C. & Dugmore, A.

Buckland, P. C. & Dugmore, A., Sadler, J.P.
Burstrom, M.  

Byock, J. L.  

Byock, J. L.  

Byock, J. L.  

Byock, J. L.  

Callmer, J.  

Campbell, R.  

Cannon, A.  

Cannon, A.  

Capelle, T.  

Carniero, R. L.  
Cordwell, J., M.  

Crawford, B.  

Curle, J.  

Curle, C. L.  

Dahlin Hauken, A.  

Damm, C.  

Debes, H. J.  

Dommasnes, L. H.  
Douglas, M.

Duczko, W.
1984 *Die Kugelnadel aus Bj832*. In *Birka II:1, Systematische Analsyen

Duczko, W.
1985 *Birka V. The Filigree and Granulation Work of the Viking Period.*
KVHAA, Stockholm.

Dunwell, A. J. & Cowie, T. G.; Bruce, M. F.; Neighbour, T.; Rees. A. R.
1995 A Viking Cemetary at Cnip, Uig, Isle of Lewis. *Proceedings of the*
Society of Antiquaries of Scotland* 125*, pp.719-752.

Durrenburger, E. P.
1992 *The Dynamics of Medieval Iceland: Political Economy and*
Literature. University of Iowa Press, Iowa City.

Earle, T. (editor)

Eicher J. B., & Roach-Higgins, M.
1997 Definition and Classification of Dress. In *Dress and Gender, Making*
Meaning in Cultural Contexts*, edited by Ruth Barnes & Joanne Eicher, pp. 8-

Eicher, J. B.

Eicher, J. B. (editor)
1999 *Dress and Ethnicity, Changes across Space and Time*. Berg,
Oxford, Washington D.C.

Einarsson, B., F.
1995 *The Settlement of Iceland; a Critical Approach. Granastaðir and*
the Ecological Heritage*. Híð Íslandska bókmenntafelag, Reykjavik.

Eldjár, K.

Eldjár, K.
1958 *Prjú kuml norðanlands. Árbók hins islenzka fornleifafélags,*
Reykjavík, pp.130-144.
Eldjárn, K.  
1961 Smásga um tvær nætur og þrjár þó. Stakir Steinar, Tólfr Minjþættir, pp. 28-34.

Eldjárn, K.  

Eldjárn, K. & Friðriksson, Á.  

Eliade, M.  

Eliade, M.  

Eliade, M.  

Ellis Davidson, H. R.  

Ellis Davidson, H. R.  

Eniosova, N.  
Casting Moulds from the Upper Dnieper Region (10-11th centuries AD). Department of Archaeology, Moscow State University. Unpublished paper.

Eniosova, N.  
The Methods of Production of Scandinavian Oval Brooches found in Viking Age Urban Site, Gnezdovo. Department of Archaeology, Moscow State University. Unpublished paper.

Entwistle, J.  

Fanning, T.  
Fanning, T.  
1994  *Viking Age Ringed Pins from Dublin*. Royal Irish Academy, Dublin.

Fischer, A.  

Fjellström, P.  

Flowers, S. E.  

Foucault, M.  

Foucault, M.  

Foucault, M.  

Foucault, M.  

Freysson, S.  

Friðriksson, A.  

Fugelsang, S. H.  

Fugelsang, S. H.  
1986  *The Relationship between Scandinavian and English Art from the Late Eighth to Mid-Twelfth Century*. In *Sources of Anglo-Saxon Culture-*. 501

Fugelsang, S. H.

Fugelsang, S. H.

Fuglesang, S. H.

Gabus, J.

Gaimster, M.

Gell, A.

Gestsdóttir, H.

Gestsdóttir, H.
2000 Geldingurinn á Öndverðarnesi. Árbók hins Islenska fomleifafélags, Reykjavík, pp.143-150.

Gestsson, G.
1962 Spjót frá Kötmula í Fjöðshlið. Árbók hins Islenska fomleifafélags, Reykjavík, pp. 72-81.

Gilchrist, R.

502
Ginters, V.

Goffman, E.

Gold, G. L., & Paine, R.

Gordon, K.

Goudie, G.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.
Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.
1984a Two Viking-Age Silver Brooch Fragments Believed to be from the 1858 Skaill (Orkney) Hoard. Proceedings of the Society of Antiquaries of Scotland 114, pp.289-301.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J.

Graham-Campbell, J. (editor) & Batey, C.E.; Clarke, H.; Page, R.I.; Price, N.S.

Graham Campbell, J. & Sheehan, J.
Graham-Campbell, J. & Batey, C.E.  

Gräslund, A.-S.  

Gräslund, A.-S.  

Gräslund, A.-S.  

Gräslund, A.-S.  

Gräslund, A.-S.  

Gräslund, A.-S.  

Gräslund, A.-S.  
2002a *Runstensstudier-"Gud hjälp nu väl nennes själ".* Uppsala universitet, Uppsala.

Gräslund, A.-S.  
Grieg, S.
1940 Viking Antiquities in Scotland, Part II. Viking Antiquities in Great Britain and Ireland, Oslo.

Hallsdottir, M.

Harrison, S.

Hastrup, K.

Hayeur Smith, M.
1996 An Anthropological Analysis of Runic Inscriptions from the Viking Age. MSc, Université de Montreal.

Hårdh, B.

Hårdh, B.

Härke, H.

Hägg, I.


Hermanns-Auðardóttir, M.
1989 Islands tidiga Bosättning: Studier med Utgångspunkt i Merovingertida-Vikingatida Gardslåmnningar i Herjolfsdalur,


Isaacs, H. R.

Jansson, I.

Jansson, I.

Jansson, I.

Jansson, I.

Jansson, I.

Jansson, I.

Jansson, S. B. F.

Jesch, J.

Johannesson, J.


Kristjánsson, J.  

Laberge, M.  

Lamm, K.  

Lecouteux, C.  

Lee, M. M.  

Lévi-Strauss, C.  

Lévi-Strauss, C.  

Lévi-Strauss, C.  

Lévi-Strauss, C.  

Linke, U.  

Liu, K.R. & Wataghani, L.  
Lønborg, B.

Lundström, A.

MacGregor, A. & Mainman, A.J.; Rogers, N.S.H.

Magnússon, P.

Magnússon, P.

Magnússon, P.

Mainman, A.J. & Rogers, N.S.H.

Malinowski, B.

Malmer, B.

Margeson, S.

Margeson, S.
1997 *The Vikings in Norfolk*. Castle Museum, Norwich.
Mauss, M.  

Mauss, M.  

McGovern, T. & Bigelow, G.; Amorosij.; Russell, D.  

McGovern, T & Perdikaris, S.; Tinsley, C.  

Meskell, L. M.  

Meskell, L. M.  

Miller, W. I.  

Mickelsen, N. R.  

Moltke, E.  

Montelius, O.  
Montserrat, D.

Morin, E.

Müller-Wille, M. & Vierck, H.

Müller-Wille, M.

Munksgaard, E.

Nelson, S. M.

Nordahl, E.
1988 Reykjavik from the Archaeological Point of View. Societas Archaeologica Uppsaliensis, Uppsala.

Novikova, G. L.

Nowenstein-Matey, C.
1990 Le Draugr dans la literature islandaise du Moyen-Age et dans les contes populaires de Jon Arason. MA, Université de Paris IV.

O'Brien, E.
Oddy W.A. & Meyer, V.E.G

Ólafsson, G.

Owen, O. & Dalland, M.

Parker Pearson, M.

Pasternak, B. & Ember, C.R.; Ember, M.

Paterson, C.

Pálsson, G. (editor)

Pálsson, H.

Peebles, C.S. & Kus, S.M.

Petersen, J.
1928 Vikingetidens Smykker. Dreyers Grafiske Anstalt, Stavanger.

Petersen, J.
Petré, B.  

Pokornowski, I.  

Polhemus, T. & Proctor, L.  

Price, N. S.  

Rautman, A. E. (editor)  

Renauld-Krantz, P.  

Richardson, C. A.  

Ringstedt, N.  

Roach, M. & Bubolz Eicher, J. (editors)  

Roach, M. & Bubolz Eicher, J.  
Rygh, O.

Sagard, G.
1990 *Le grand voyage au pays des Hurons*. Bibliothèque québécoise, Quebec.

Samson, R.

Samson, R.

Samson, R.

Sapir, E.

Sass, T.

Schwarz, R. A.

Shanks, M & Tilley, C.

Sheehan, J.
Shilling, C.

Sigurðsson, J. Viðar.

Sigurðsson, J. Viðar

Simpson, J.

Sjøvold, T.

Skibsted Klaesøe, I.

Skyre, D. & Pilø; Pedersen, U.

Smith, K. P.

Smith, K. P & Parsons, J.R.

Smith, K. P & Hayeur Smith, M.
Solberg, B.

Sørensen, M. L. S.

Stevenson, R. B. K.

Stevenson, R. B. K.

Stevenson, R. B. K.

Strathern, M.

Ström, K.

Stummann Hansen; S.

Sveinbjarnardóttir, G.

Sveinbjarnardottir, G.
Sveinbjarnardóttir, G.  

Synnott, A.  

Theirry, S.  

Thorarinsson, S.  

Thunmark-Nylén, L.  

Thunmark-Nylén, L.  

Tilley, C.  

Turner, T.  

Turner, B.  

Þódarsson, M.  
1931 *Kunst. Nordisk Kultur XXVII*, Stockholm

Þódarsson, M.  

Untracht, O.  
Vesteinsson, O.

Vesteinsson, O.
1998 Patterns of Settlement in Iceland: a Study in Pre-History. Saga
Book of the Viking Society XXV, pp.1-29.

Vesteinsson, O.

Vestergaard, T. A.
1991 Marriage Exchange and Social Structure in Old Norse Mythology.
In Social Approaches to Viking Studies, edited by R. Samson, pp. 21-34.
Crúithne Press, Glasgow.

Vilhjálmsson, V. Ò.
1990 Dating Problems in Icelandic Archaeology. Norwegian

Walsh, A.
1998 A Summary Classification of Viking Age Swords in Ireland. In
Ireland and Scandinavia in the Early Viking Age, edited by a. R. O. F.
Howard B. Clark; Maire Ni Mhaonaigh, pp. 222-235. Four Courts Press,
Dublin.

Wamers, E.
1983 Some Ecclesiastic and Secular Insular Metalwork found in

Wamers, E.
1998 Insular Finds in Viking Age Scandinavia an the State Formation of
Norway. In Ireland and Scandinavia in the Early Viking Age, edited H.B.
Clarke,Máire Ní Mhaonaigh & Raghnall Ó Floinn, pp. 37-72. Four Courts
Press.

Warner, R.
1975-6 Scottish Silver Armrings: an Analysis of Weights. Proceedings of
the Society of Antiquaries of Scotland 107, pp.136-43.

Welander, R.D.E, & Batey, C.E.; Cowie, T.G.
1987 A Viking Burial from Kneep, Uig, Isle of Lewis', (with contributions
Werner, G.

Wilson, D. M. & Klindt-Jesen,O.

Wilson, D. M.

Wobst, H. M.

Zachrisson, T.

References consulted

Amorosi, T.

Anderson, J.
1879 Notes on the Contents of Two Viking Graves in Islay Discovered by William Campbell Esq., of Ballinaby; with Notices of the Burial Customs of the Norse Sea-kings, as Recorded in the Sagas and Illustrated by their Grave Mounds in Norway and in Scotland. Proceedings of the Society of Antiquaries of Scotland XIV, pp.51-89.

Anderson, J.
Arge, S. V.

Armit, I.

Arnold, B.

Arrhenius, B.

Benendiktsson, J.

Boddy, J.

Boitet, A.

Buchli, V. A.

Buchholz, P.

Buckland, P.C.& Amorosi, T.; Barlow, L.K.; Dugmore, A.J.; Mayewski, P.A.; McGovern, T.H.; Ogilvie, A.E.J; Sadler, J.P.; Skidmore, P.
Butler, L. A. S.  

Cannon, A.  

Chebel, M.  

Clarke, H., & Ambrosiani B.  

Corin, E.  

Crumlin-Pedersen, O.  

de la Haye, A. & Wilson, E.  

Delaporte, Y.  

de Martino, E.  
1967 Le monde magique. Marabout Université.

Devisch, R.  
Diinhoff, S.

Douglas, M.

Durrenberger, P. E.

Edwards, A. J. H.

Edwards, A. J. H.

Edwards, B. J. N.

Eldjárn, K.

Eldjárn, K.

Eldjárn, K.
1966 Kuml úr heiðnum sið, fundin á siðustu árum. Árbók hins Íslenska fómleifafélagss, Reykjavík, pp.5-68.
Eldjárn, K.

Eldjárn, K.
1979 Fornmannskuml í Dæli í Skíðadal. Árbók hins íslenska fornleifafélags, Reykjavík , pp.97-98.

Eldjárn, K.

Ellis Davidson, H. R.

Eremin, K.

Fisher, G.

Friðriksson, A. & Vesteinsson, O.

Geijir, A.

Gestsson, G.

Graham-Campbell, J.
Graham-Campbell, J.

Grímsson, Þ.
1966 Tveir Kumlfundir. Árbók hins Íslenska fomleifafélags, Reykjavík, pp. 78-86.

Gurevich, A.

Hammersley Houlberg, M.

Härke, H.

Hays, K. A.

Hayeur, M.

Hockings, P.

Hodder, I.
Hugget, J. W.

Jasiewicz, Z.

Jensen, S.

Johansen, O. S.

Jones, G.

Jones, S.

Kabell, A. A.
1977 Das Schwedische Amulet aus Hedeby. *ANF* 92, pp. 64-69.

Karras, R. M.

Kuper, L.

Kus, S.

Lambek, M.
Langdon, E. J.  

Lundström, A.  

Marchand, S.  

Marstrander, S.  

Maurer, E. M.  

McGovern, T. H.  

McGovern, T. & Mainland, l.; Amorosi, T.  

Miller, M. T.  
Molino, J.

Morris, C. D.

Musset, L.

Nielsen, K. H.

Nielsen, K. H.

Niessen S., & Brydon, A.

Nørlund, P.

Nørlund, P.
1936 Viking Settlers in Greenland and their Descendants during Five Hundred Years. Cambridge University Press, London.

O'Raihlly, C.
1998 A Classification of Bronze Stick-pins from the Dublin Excavations 1962-72. In Dublin and Beyond the Pale, Studies in Honour of Patrick Healy,

Ó Floinn, R.

Overing, G., R. & Osborn, M.

Rainbird, P.

Randsborg, K.

Ritchie, A.

Salamone, F. A.

Sawyer, P.

Sawyer, P.

Sawyer, P.
Sawyer, P.  

Schitzel K. & Crumlin-Petersen, O.  

Schjødt, J. P.  

Skovgaard-Petersen, I.  

Smith, K. P.  

Smith, K. P.  

Smith, K. P.  

Smith, K. P.  

Smith, K. P & Hancock, R.; Rink, W.J.  
1997 Getting to the Core of the Matter: Potential Implications of a Microblade Core from Western Iceland on North Atlantic Settlement History and Arctic Prehistory. Paper presented at the Society for America Archaeology Symposium "Understanding Human Migrations & their Archaeological Signatures". Unpublished paper.

Stig-Sørensen, M. L.

Sveinbjarnardóttir, G.

Thålin, H.

Thorsteinsson, A.

Trofimova, A. G.

Wallace, B.

Waller, J.

Wamers, E.
1985 Insularer Metallschmuck in wikingerzeitlichen Gräbern Nordeuropas (Offa-Bücher 56), Neumünster.
Warmind, M. L.