

## CODNOR CASTLE, CASTLE LANE, DERBYSHIRE: INTERIM SUMMARY OF THE DENDROCHRONOLOGICAL ANALYSIS

### Sampling and Analysis

Fifty-four core samples were taken from timbers of the farmhouse and associated barn (Table 1), though the timbers within the farmhouse associated with the roof of the primary building were excluded as they were considered unsuitable for analysis. Each sample was given the code COD-C and numbered 01–54. Roof trusses and main bridging beams have been numbered from north to south (farmhouse) and east to west (barn) and common joists from north to south (farmhouse and barn). Analysis undertaken on 44 of these samples (the other ten being found to have too few rings for secure dating) resulted in the successful dating of 36 of them (Fig 1).

### Interpretation

#### Farmhouse

Eight of the samples from the floor of the primary building have been dated. Two samples had bark edge present and were felled in AD 1538. Two other samples had lost a very small number of rings during coring and have estimated felling dates of c AD 1537 and c AD 1539. The entire group appear likely to be coeval and hence the timbers represented were all probably felled in the late AD 1530s.

Eight samples have been dated from the roof over the southern extension. These appear to form a coherent group and, with an average heartwood-sapwood boundary of AD 1545, the timbers represented are all thought to have been felled in the period AD 1560–85.

Six of the samples from the floor in the southern extension have been dated. Only one of these samples has retained any trace of sapwood but again the samples appear to form a coherent group and hence the timbers represented were all probably felled in the range AD 1560–78.

The similarity of the felling date ranges for the southern extension roof and floor samples makes it likely that both of these elements are contemporary.

#### Barn

Eight of the roof timbers of the barn have been dated. They appear likely to represent at least three different phases of felling: one timber has a felling date range of AD 1538–63 and hence could be coeval with the timbers from the primary floor in the farmhouse; three timbers (including two that had clear evidence for reuse) appear coeval and have a felling date range of AD 1560–85 which suggests that they are potentially contemporary with the timbers from the farmhouse southern extension roof and floor; one timber has a *terminus post quem* for felling of AD 1508 and thus could be associated with either of these sixteenth century felling phases.

The remaining three samples again appear to form a coherent group. Two of these samples lost a minimal amount of sapwood during coring and have estimated felling dates of c AD 1727 and c AD 1728. It thus appears that all three timbers represented were all felled in the late AD 1720s.

Six of samples from the floor of the barn have been dated. The samples appear likely to be coeval and, with an average heartwood-sapwood boundary date of AD 1599, the five joists represented (thought to be reused) have a felling date range of AD 1617–39. The sixth dated sample has bark edge present and thus the main beam represented was felled in AD 1727.

INTERIM

**Table 1 Details of the samples taken from Codnor Castle, Castle Lane, Derbyshire**

| Sample number                          | Sample location                | Total rings* | Sapwood rings** | First measured ring date (AD) | Last heartwood ring date (AD) | Last measured ring date (AD) |
|--|--------------------------------|--------------|-----------------|-------------------------------|-------------------------------|------------------------------|
| Farmhouse                              |                                |              |                 |                               |                               |                              |
| <i>Floor – primary (or north side)</i> |                                |              |                 |                               |                               |                              |
| COD-C01                                | East common joist 3            | 111          | 19c(+c3 lost)   | 1426                          | 1517                          | 1536                         |
| COD-C02                                | East common joist 5            | 96           | 14c(+c2 lost)   | 1440                          | 1521                          | 1535                         |
| COD-C06                                | West common joist 3            | 99           | 13C             | 1440                          | 1525                          | 1538                         |
| COD-C07                                | West common joist 4            | 85           | 12C             | 1454                          | 1526                          | 1538                         |
| COD-C08                                | West common joist 5            | 150          | 15              | 1381                          | 1515                          | 1530                         |
| COD-C14                                | North-south beam (north)       | 99           | --              | 1396                          | ----                          | 1494                         |
| COD-C23                                | Entrance - Joist 1             | 111          | --              | 1406                          | ----                          | 1516                         |
| COD-C24                                | Entrance - Joist 2             | 81           | --              | 1403                          | ----                          | 1483                         |
| COD-C25                                | Entrance - Joist 3             | NM           | --              | ----                          | ----                          | ----                         |
| COD-C26                                | Entrance - Joist 4             | 70           | h/s             | ----                          | ----                          | ----                         |
| COD-C27                                | Entrance - back plate/beam     | 48           | h/s             | ----                          | ----                          | ----                         |
| <i>Floor - south extension</i>         |                                |              |                 |                               |                               |                              |
| COD-C03                                | East common joist 1            | 121          | 21              | 1439                          | 1538                          | 1559                         |
| COD-C04                                | East common joist 2            | 89           | --              | 1415                          | ----                          | 1503                         |
| COD-C05                                | East common joist 5            | 63           | --              | 1460                          | ----                          | 1522                         |
| COD-C09                                | West common joist 1            | 75           | --              | 1468                          | ----                          | 1542                         |
| COD-C10                                | West common joist 2            | 98           | --              | 1444                          | ----                          | 1541                         |
| COD-C11                                | West common joist 3            | 78           | --              | 1437                          | ----                          | 1514                         |
| COD-C12                                | West common joist 4            | NM           | --              | ----                          | ----                          | ----                         |
| COD-C13                                | Main east-west beam (south)    | NM           | --              | ----                          | ----                          | ----                         |
| <i>Roof – south extension</i>          |                                |              |                 |                               |                               |                              |
| COD-C15                                | East principal rafter, truss 3 | 94           | --              | 1415                          | ----                          | 1508                         |
| COD-C16                                | West principal rafter, truss 3 | 120          | --              | 1411                          | ----                          | 1530                         |
| COD-C17                                | King post, truss 3             | 120          | h/s             | 1433                          | 1552                          | 1552                         |
| COD-C18                                | West principal rafter, truss 4 | 110          | 01              | 1438                          | 1546                          | 1547                         |
| COD-C19                                | King post, truss 4             | 112          | h/s             | 1430                          | 1541                          | 1541                         |

Table 1 (cont)

| Sample number | Sample location                               | Total rings* | Sapwood rings** | First measured ring date (AD) | Last heartwood ring date (AD) | Last measured ring date (AD) |
|---------------|---|--------------|-----------------|-------------------------------|-------------------------------|------------------------------|
| COD-C20       | East principal rafter, truss 5                | 117          | h/s             | 1431                          | 1547                          | 1547                         |
| COD-C21       | West principal rafter, truss 5                | 120          | h/s             | 1426                          | 1545                          | 1545                         |
| COD-C22       | West queen strut, truss 5                     | 81           | h/s             | 1460                          | 1540                          | 1540                         |
| Barn          |   |              |                 |                               |                               |                              |
| <i>Roof</i>   |   |              |                 |                               |                               |                              |
| COD-C28       | Tiebeam truss 1                               | 69           | 12c(+c1 lost)   | 1658                          | 1714                          | 1726                         |
| COD-C29       | North principal rafter, truss 1               | 53           | 12c(+c1 lost)   | 1675                          | 1715                          | 1727                         |
| COD-C30       | South principal rafter, truss 1               | 56           | 13              | ----                          | ----                          | ----                         |
| COD-C31       | South queen post, truss 1                     | 85           | --              | ----                          | ----                          | ----                         |
| COD-C32       | North principal rafter, truss 2               | 51           | 09C             | ----                          | ----                          | ----                         |
| COD-C33       | South principal rafter, truss 2               | NM           | --              | ----                          | ----                          | ----                         |
| COD-C34       | South queen post, truss 2                     | 69           | h/s             | 1455                          | 1523                          | 1523                         |
| COD-C35       | North plate                                   | 73           | h/s             | 1468                          | 1540                          | 1540                         |
| COD-C36       | North purlin, truss 1 – east wall             | 131          | h/s             | 1422                          | 1552                          | 1552                         |
| COD-C37       | South purlin, east extension                  | 73           | --              | 1421                          | ----                          | 1493                         |
| COD-C38       | South east purlin, truss 1 – east wall        | 133          | h/s             | 1412                          | 1544                          | 1544                         |
| COD-C39       | South west uppoer purlin, truss 2 – west wall | 77           | h/s             | ----                          | ----                          | ----                         |
| COD-C40       | Tiebeam, truss 2                              | 66           | h/s             | 1648                          | 1713                          | 1713                         |
| <i>Floor</i>  |   |              |                 |                               |                               |                              |
| COD-C41       | Beam 1  | 72           | 13              | ----                          | ----                          | ----                         |
| COD-C42       | Beam 2  | 58           | 11C             | 1670                          | 1716                          | 1727                         |
| COD-C43       | Beam 3  | 71           | 18C             | ----                          | ----                          | ----                         |
| COD-C44       | Joist 9, bay 1                                | NM           | --              | ----                          | ----                          | ----                         |
| COD-C45       | Joist 5, bay 2                                | NM           | --              | ----                          | ----                          | ----                         |
| COD-C46       | Joist 8, bay 2                                | NM           | --              | ----                          | ----                          | ----                         |
| COD-C47       | Joist 4, bay 3                                | 77           | h/s             | 1528                          | 1604                          | 1604                         |
| COD-C48       | Joist 6, bay 3                                | 88           | h/s             | 1509                          | 1596                          | 1596                         |

**Table 1 (cont)**

| Sample number | Sample location | Total rings* | Sapwood rings** | First measured ring date (AD) | Last heartwood ring date (AD) | Last measured ring date (AD) |
|---------------|-----------------|--------------|-----------------|-------------------------------|-------------------------------|------------------------------|
| COD-C49       | Joist 9, bay 3  | 109          | 12              | 1508                          | 1604                          | 1616                         |
| COD-C50       | Joist 10, bay 3 | 50           | --              | 1527                          | ----                          | 1576                         |
| COD-C51       | Joist 3, bay 4  | NM           | --              | ----                          | ----                          | ----                         |
| COD-C52       | Joist 9, bay 4  | 70           | h/s             | 1524                          | 1593                          | 1593                         |
| COD-C53       | Joist 9, bay 5  | NM           | --              | ----                          | ----                          | ----                         |
| COD-C54       | Joist 7, bay 5  | NM           | --              | ----                          | ----                          | ----                         |

\* NM = not measured

\*\* h/s = the heartwood/sapwood boundary is the last-measured ring

c(+cxlost) = complete sapwood on timber, all or part lost during the sampling process with the estimated number of lost rings in brackets

C = complete sapwood retained on sample, last-measured ring is the felling date

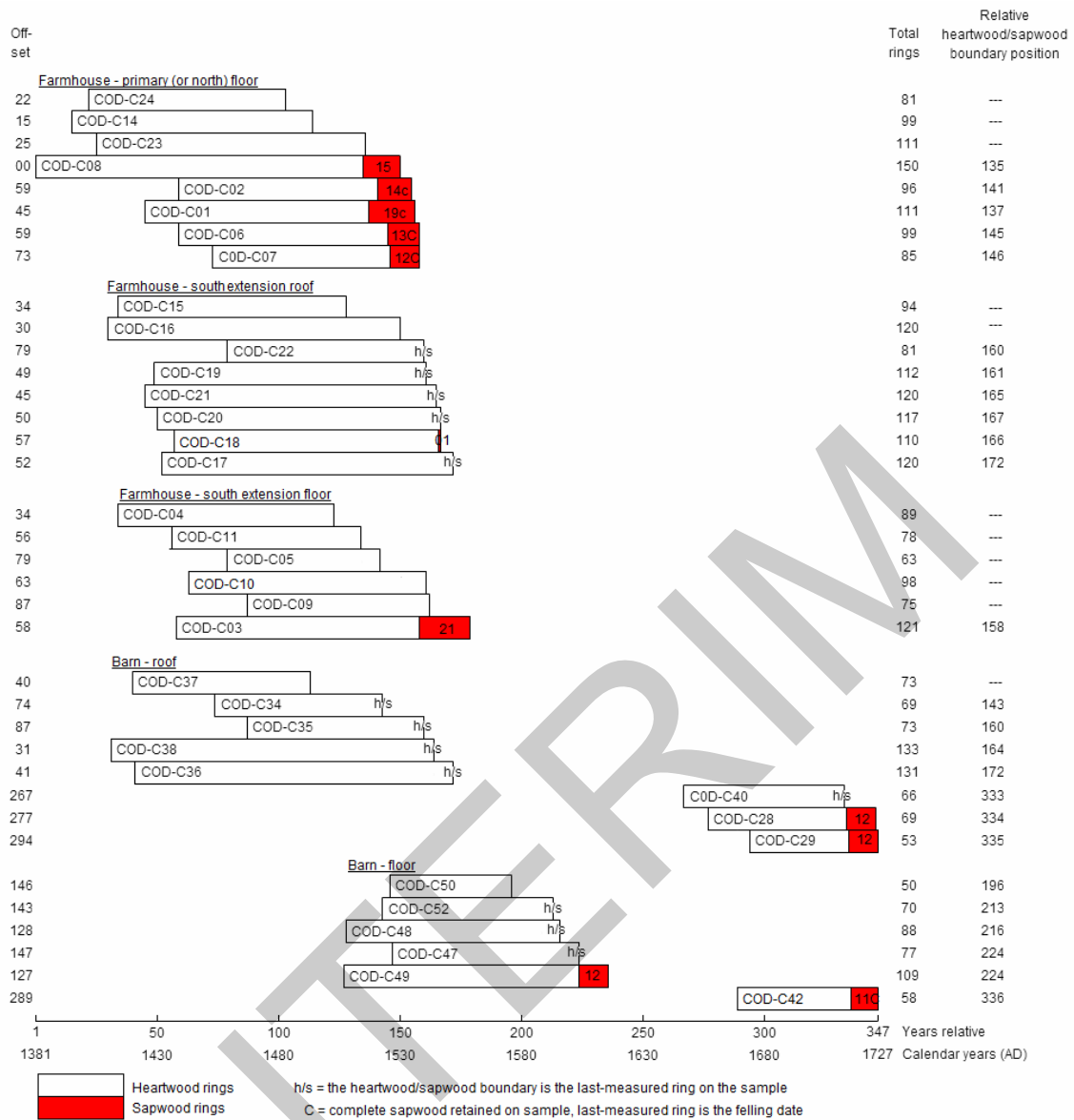


Figure 1: Bar diagram showing dated samples, sorted by area