

# A long cist burial at Innerwick, near Dunbar, East Lothian

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with contributions by C M Clarke & M F Bruce

## ABSTRACT

*Excavation at Innerwick recorded a long cist containing the unaccompanied inhumation of an adolescent female dating to the mid-first millennium AD. There were no indications that this formed part of a larger cemetery. The project was commissioned by the Roads Directorate of the Scottish Office Industry Department and was managed on its behalf by Historic Scotland.*

## INTRODUCTION

In March 1994, the Centre for Field Archaeology (CFA) carried out an archaeological assessment for the Roads Directorate of the Scottish Office Industry Department in advance of the improvement of a section of the A1, between the Blue Circle cement works and the Innerwick junction, in East Lothian (illus 1). An archive report detailing the methods and results of this assessment (Mann 1994) is lodged with the National Monuments Record of Scotland (RCAHMS). This report describes the one significant new find made during the assessment.

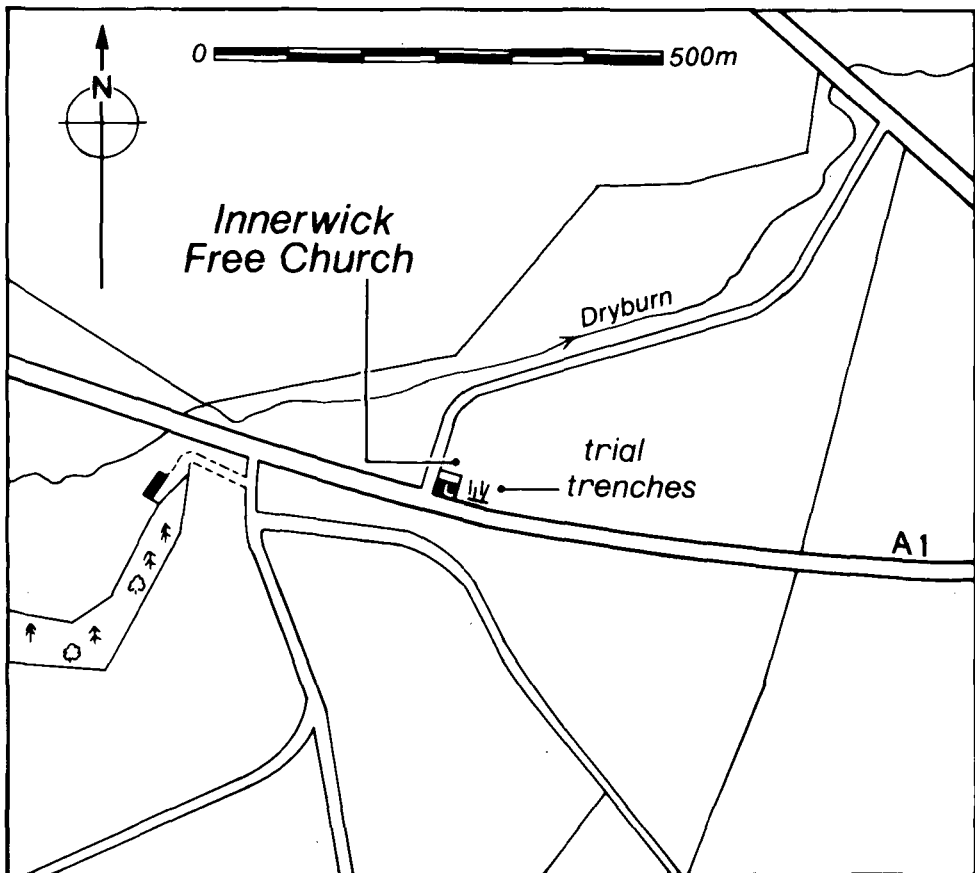
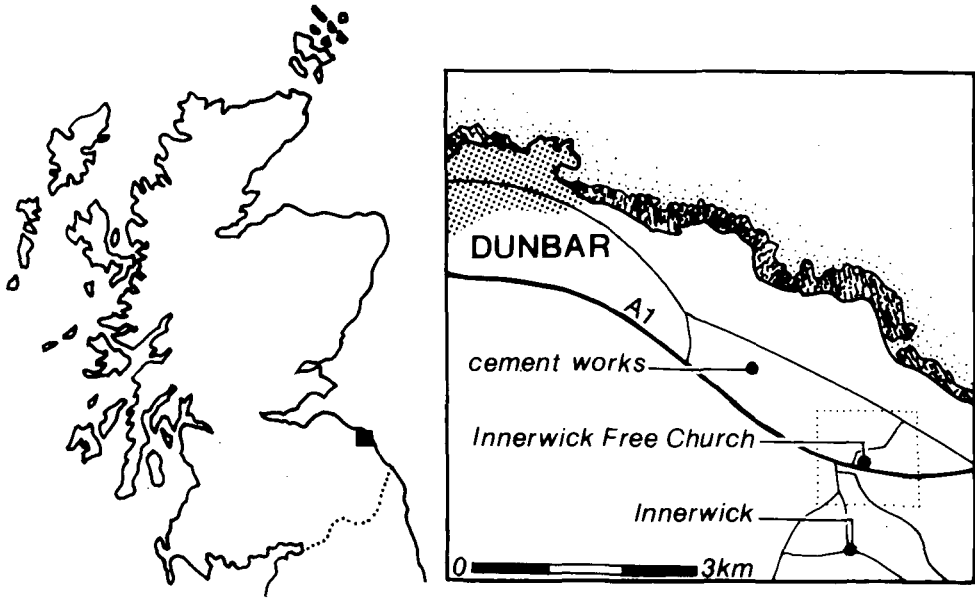
Towards the south-west corner of a field containing the abandoned Innerwick Free Church and manse, the assessment corridor passed close to the site (NGR: NT 7219 7503) where a Bronze Age short cist was discovered in 1939 (Stevenson 1940; illus 2). The skeletal remains in this had turned to dust, but an accompanying Beaker survived. In recognition of the potential archaeological sensitivity of the adjacent area, a geophysical (resistivity) survey was undertaken in the vicinity of this find-spot in an unsuccessful attempt to locate further cists or other features of archaeological interest (illus 2). A series of trial trenches was then excavated in order to detect any features not located by the geophysical survey. It was when the first of these trenches was opened that a long cist was located (NGR: NT 7217 7502). Additional trenches excavated around this failed to locate any further burials (illus 2).

## EXCAVATION RESULTS

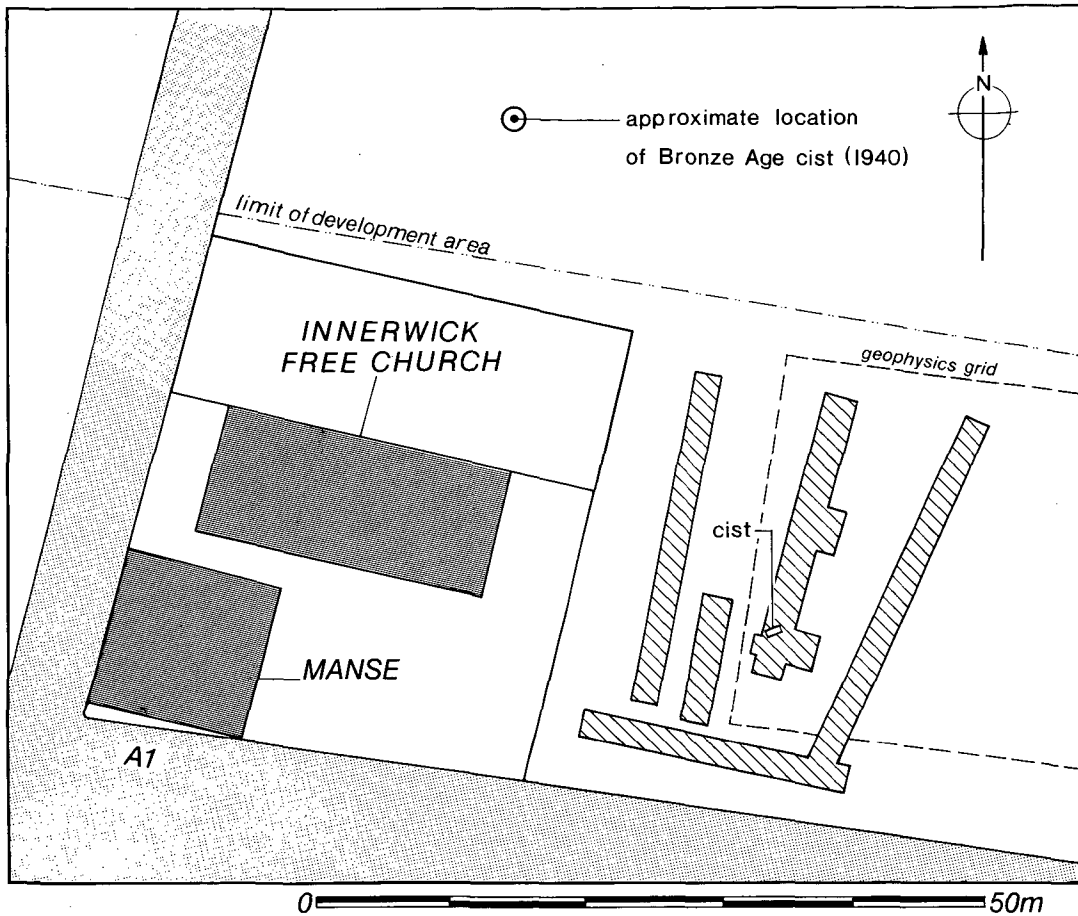
### THE CIST

The cist measured 1.8 m in length by 0.6 m wide and was 0.35 m in depth (illus 3). It was aligned approximately east/west. The walls comprised upright side slabs, roughly shaped and measuring

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ILLUS 1 Location map. (Based on the Ordnance Survey map © Crown Copyright)

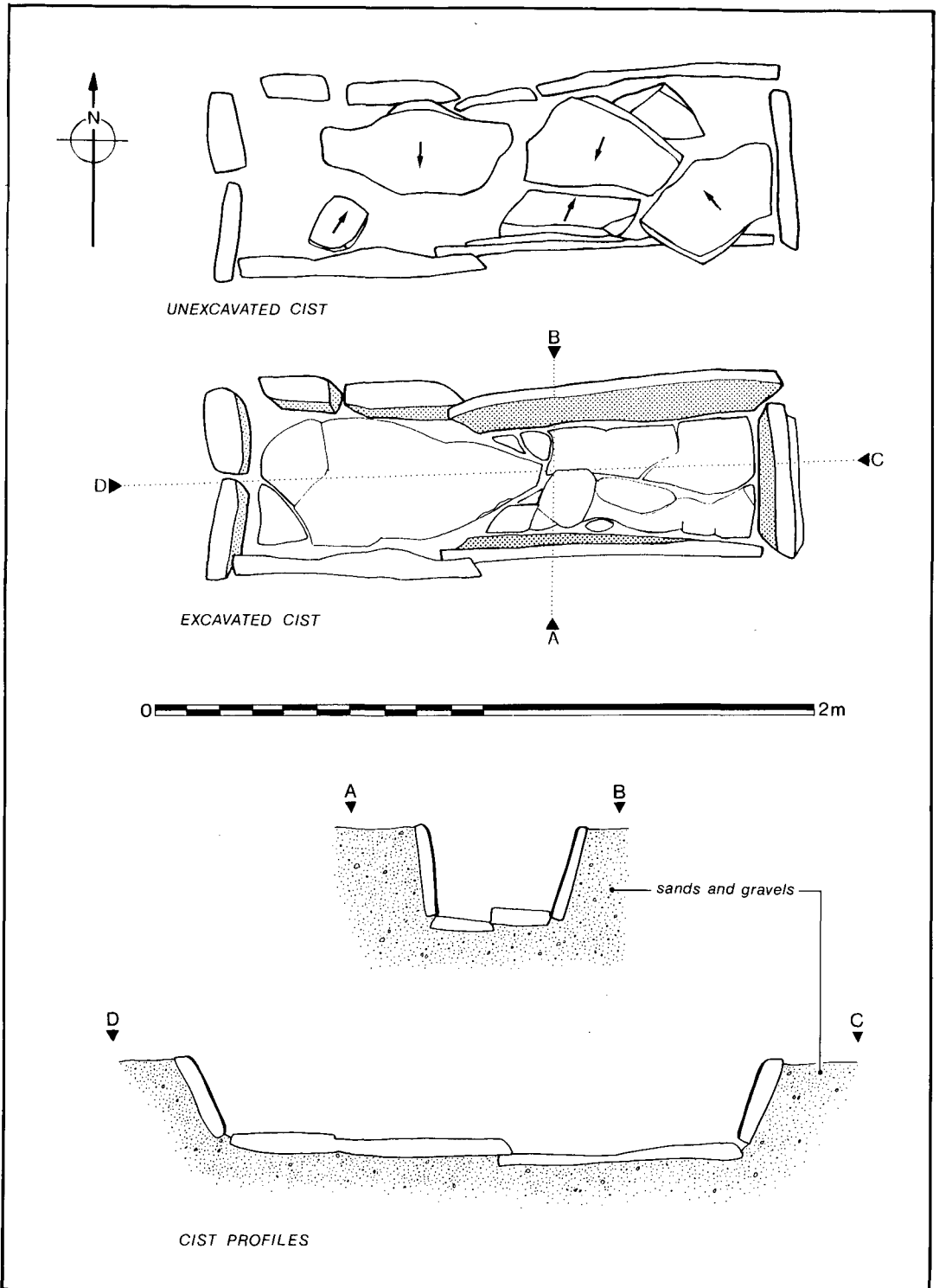


ILLUS 2 Plan of the locations of the long cist, trial trenches, part of the geophysical survey grid and earlier discovery of a short cist

from 0.75 m to 1 m in length, and two end slabs, each measuring 0.6 m by 0.3 m. The slabs were of varying thickness and were of a locally available flaky, yellow sandstone. Some of the slabs lining the grave had fractured *in situ*, presumably as a result of deep ploughing activity. The capstone(s) had fractured into six irregularly shaped pieces. These had collapsed onto the surface of the upper fill of the cist which comprised a fine, dark red, sandy gravel. This fill sealed a lower deposit of silt which surrounded the skeletal remains. The fills contained no organic inclusions and were the subject of exploratory palynological analysis which proved to be inconclusive (Clarke, below). The floor of the cist was also formed by several roughly worked sandstone slabs.

#### THE BURIAL

The skeletal remains were poorly preserved and incomplete. In the north-west part of the cist, the collapsed, fractured capstone appears to have protected the bones from leaching by rainwater, bioturbation and other decompositional processes. A piece of the cranium remained *in situ* resting on the surface of the floor slabs, at the western end of the cist, and this indicated the supine



ILLUS 3 Plans and profiles of the long cist

attitude of the skeleton. Several teeth were recovered from the fill surrounding the cranium. The left arm, scapula and collar bone were complete and *in situ*: this arm extended along the northern edge of the cist. The lower half of the right arm had been displaced to the northern (ie left) side of the skeleton, indicating that at the time of burial, the arms may have been crossed. In addition, several phalanges were found scattered throughout the fill. The lumbar vertebrae and sacrum were complete and *in situ* as was the left pelvic bone. The lower limbs were entirely absent as a result of post-depositional decay.

#### RADIOCARBON DATE

A bone sample, weighing 300 g, was submitted to the Scottish Universities Research Reactor Centre (SURRC) for radiocarbon analysis. The radiocarbon age, below, is quoted in conventional years BP. The calibrated age ranges were determined by SURRC using the University of Washington, Quaternary Isotope Laboratory, Radiocarbon Dating Program (1987). The 20-year atmospheric calibration curve is used throughout and the calendar age ranges, obtained from the intercepts (Method A), are expressed at both the one- and two-sigma levels of confidence. The following determination was received.

Lab No	BP	$\delta^{13}\text{C}(\text{‰})$	Calibrated Age Ranges
GU-4067	1510 $\pm$ 70	-25.5	AD 440-623 (1 sigma); AD 400-660 (2 sigma)

#### THE HUMAN BONES

##### M F Bruce

Unfortunately, the skeleton was both very incomplete and in a poor state of preservation, severely limiting the information that could be obtained from the bones. The bones from the cist were those of a slender young adult female. Sex was determined primarily from the pelvic features, reinforced by the general gracility of the skeleton. Age was assessed from general skeletal degenerative changes, from dental attrition and from the stage of closure of the cranial sutures. Within Brothwell's (1981) scheme, the individual was aged between 17 and 25 years of age at death.

A central Schmorl's node was noted on the superior surface of the first lumbar vertebra. Schmorl's nodes are generally thought to be caused by stress on the spine during adolescence or early adulthood, such as that caused by heavy lifting. These nodes represent herniations of intervertebral disc material into the bone of the vertebral bodies and may be asymptomatic in the living. Archaeologically, Schmorl's nodes tend to be more common in men than in women although there are substantial differences both temporally and geographically (eg Saluja 1986), probably reflecting social differences and the sexual division of labour. Slight erosion of the anterior margins of the fourth and fifth vertebral bodies was noted.

##### *Dental remains*

Sieving of all of the grave fill was carried out, allowing for the retrieval of the surviving dental material. Eight enamel shells were recovered, two of which included remnants of the roots. There were no caries on these crowns, although this does not preclude caries at the neck of the tooth which can be accurately assessed only when the root is also present. There was no evidence of the

horizontal grooves known as enamel hypoplasia which may indicate disturbance during the growth of the teeth and, by extension, systemic illness or malnutrition.

#### *Cause of death*

Cause of death could not be determined in the present case.

#### POLLEN ANALYSIS

C M Clarke

In order to test for the presence of 'ritual floral tributes' (cf Tipping 1994), a sampling strategy was adopted which involved taking six samples within the north-west corner of the cist, at vertical intervals of 0.1 m. In addition, nine samples were taken from various points across the floor of the cist in order to obtain as wide a coverage as possible.

The pollen was poorly preserved, with both chemical and mechanical degradation much in evidence. Although the preservation of the fungal palynomorphs is superior to that of the pollen, the assemblages were homogeneous, suggesting that there is no palynological distinction between material collected from the cist floor and that taken from the vertical section. This favours the hypothesis that all of the material may be of secondary deposition and primary deposits on the cist floor are not represented or have been diluted by later deposits.

#### DISCUSSION

Though there is no evidence of Christian burial from an early period in this area, the excavated long cist does meet some criteria for the identification of an Early Christian burial: it is orientated east/west and no grave goods were present. Groups of long cists are being found with increasing regularity in south-east Scotland, both north and south of the Firth of Forth (see Dalland 1992 and Proudfoot 1996 for recent discussions), and are often presumed to represent a Christian burial rite. Recent excavations and resultant radiocarbon dates have demonstrated a closely comparable range of dates for long cist cemeteries at the Catstane (Cowie 1978), the Hallow Hill (Proudfoot 1996), *Four Winds* (Dalland 1992) and *Avonmill Road* (Dalland 1993).

The long cist at Innerwick was seemingly isolated, as neither trial trenching nor geophysics identified other burials in the area. None the less, one cannot entirely dismiss the possibility that other similar burials exist in the vicinity, outwith the study area (ie the road construction corridor). It may be no more than coincidence that the now derelict Innerwick Free Church and a Bronze Age cist both occurred within the same small area as the long cist; alternatively, these three features may hint at a site which has been a burial ground over a period of at least three millennia.

#### ACKNOWLEDGEMENTS

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