Dunfermline: from 'Saracen' castle to 'populous manufacturing royal burrow'

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ABSTRACT

In the past 23 years much archaeological work has taken place in Dunfermline, Fife. A wealth of information has been uncovered on the medieval burgh, revealing aspects of its development, society, trade and industry. In particular, the recently restored Abbot House has been found to contain a complex architectural and archaeological history. Preparation of this paper was entirely funded by Historic Scotland.

INTRODUCTION

(Italicized letters in brackets within the text refer to illus 3; italicized numbers refer to the Gazetteer and illus 12.)

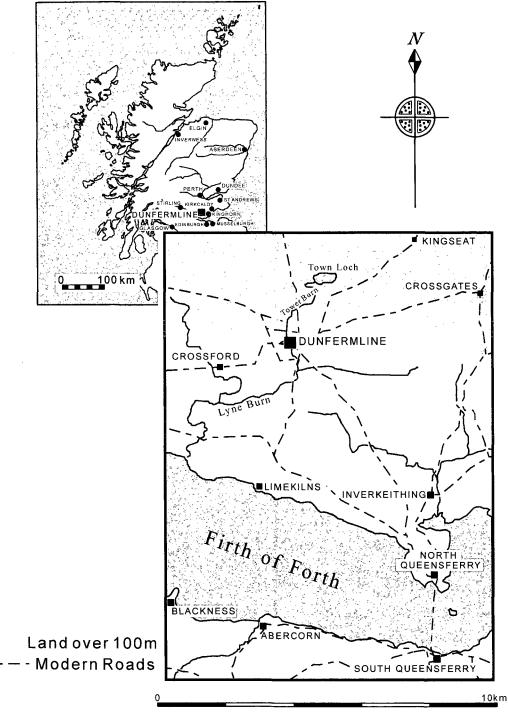
The former burgh of Dunfermline, Fife, was among the first burghs to be studied by the Scottish Burgh Survey (Gourlay & Turner 1978). Prior to publication of the Burgh Survey, almost the only archaeological work in the town had been by the Office of Works/Department of the Environment at the abbey (3, 4) and palace (5), both now in the care of Historic Scotland. In the 19th century 'diggings' had taken place at the abbey (2, 12) and 'Malcolm Canmore's Tower' (1). More recently, the site of St Leonard's Hospital was investigated in 1975 (6). Since then a number of archaeological investigations have taken place within the burgh itself, largely the work of the Urban Archaeology Unit and its successor, the Scottish Urban Archaeological Trust Limited. More recently Scotia Archaeology Limited has also been working in Dunfermline. The results of all these investigations are assessed here.

LOCATION AND TOPOGRAPHY

The historic burgh of Dunfermline is situated in south-west Fife, about 5 km from the north shore of the Firth of Forth, at the junction of important early routes: east to Kirkcaldy, northeast to St Andrews, west to Stirling, south to Edinburgh by the Queensferry crossing and north to Perth.

The basic street plan of the medieval burgh — a single street with back lanes on either side, linked by vennels, wynds and closes — is still apparent today, despite redevelopment in the 18th, 19th and 20th centuries. The only major loss to the medieval street pattern is the construction of

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ILLUS 1 Location plan (Based on the Ordnance Survey map © Crown copyright)

the Kingsgate Shopping Centre which has caused the blocking of the east end of what is now called Queen Anne Street. As with many Scottish medieval burghs (eg Dunbar, Edinburgh, Elgin), Dunfermline's High Street occupies a ridge, at a height of about 100 m above sea level, from which the ground falls steeply to the south (illus 2). At the bottom of the slope lies Maygate, with the abbey precinct to the south of it. To the west of the burgh is the Tower Burn in a narrow glen up to 20 m deep, while to the south is the Lyne Burn. Until the late 18th century, the main route from the west approached Dunfermline through Pittencrieff Park, crossing the Tower Burn at Tower Bridge (O) below the strategically situated 'Malcolm Canmore's Tower' (P) on Tower Hill.

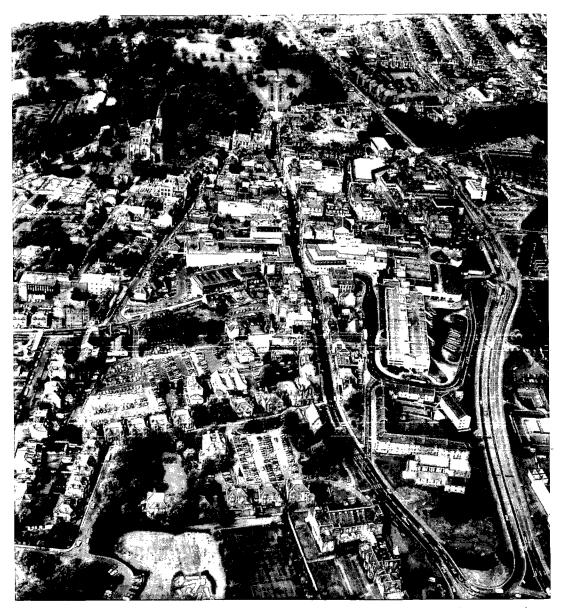
High Street (formerly Hiegate, Calsaygate or Marketgate) was the main thoroughfare of the medieval burgh and was probably the only paved, or causewayed, street, from which rigs or burgess properties extended back from the street frontage on both sides, in unequal lengths. The frontage or foreland would typically have been occupied by buildings, with booths or shops on the ground floor, and living accommodation above, the latter often accessed by forestairs which encroached on the street. Behind them the backland would have been occupied by other buildings used as workshops, byres, barns or sheds, as well as by backyards, gardens or orchards, where vegetables, herbs or fruit could be cultivated. Access to the backlands was through closes or pends. The rear of the rigs was enclosed by a head dyke or wall — a boundary wall which served to defend the burgh in the absence of a purpose-built defensive wall.

Back lanes developed outside the head dykes and themselves were later developed as streets: Rotten Row and 'Back Side' (both now Queen Anne Street) to the north of High Street and Maygate and Foul Vennel or 'in below' or 'in between the wa's' (now Canmore Street) to the south. The latter presumably derived its name from its situation beside the abbey's precinct wall. Excavation at Abbot House (U) revealed that the building had encroached on the metalled surface of Maygate, but that the road was not an original part of the burgh layout. Under the road surface were midden deposits, suggesting the area had been backlands of properties either on High Street or Kirkgate/St Catherine's Wynd. It is probable that the road began as a route to St Margaret's shrine (see below), since it did not continue beyond Abbot House and the precinct wall has an unexplained corner here; east of Maygate, the High Street properties variously extended to the precinct wall or to the vennel (now Abbot Street and Canmore Street) which led to New Row.

By the late 15th century the burgh had begun to expand eastwards beyond High Street into Gallowgate (now East Port), with a corresponding back lane (now James Street) continuing the line of Back Side.

Vennels or wynds led from High Street to beyond the burgh. Kirkgate and St Catherine's Wynd provided access from the west end of High Street to the abbey and the route to the west. Collier Row (now Bruce Street) and School Wynd (now Pilmuir Street) formed the exits out of the burgh to the north. New Row led south from the east end of High Street. Cross Wynd lay between the market cross (M) and Queen Anne Street. Welwood or Wallod Wynd (now Bonnar Street) lay between the east end of High Street and Queen Anne Street, but beyond the East Port (V). Common Vennel (now Priory Lane) lay south of the monastic wall between the Nether Yett (FF) and New Row. (Foul Vennel or 'in below the wa's' also seems to have been called Common Vennel.) Other street names, now lost, are East Vennel and Lade Wynd, the latter possibly School Wynd or near it.

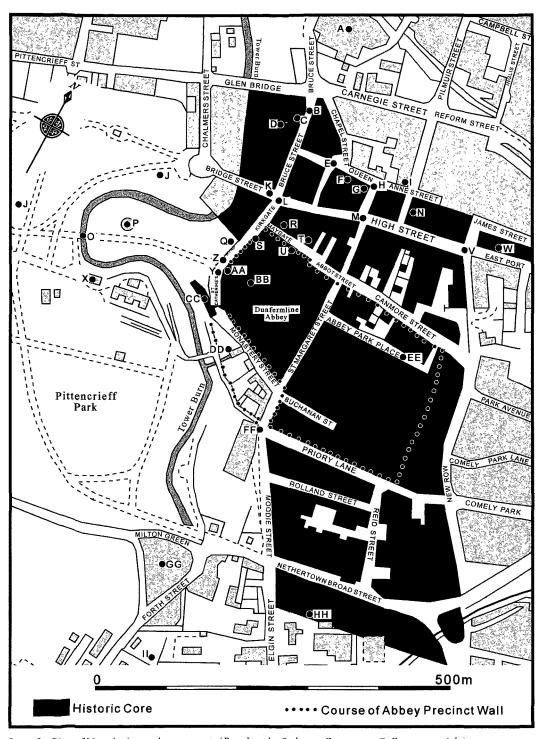
In addition to this medieval core on the north side of the abbey, there was a separate suburb, but still part of the burgh, to the south of the abbey at Netherton (the High Street settlement was sometimes referred to as the Over town [RMS, vi, no 75]). From references to a



ILLUS 2 Aerial view of Dunfermline, from the east (Royal Commission on the Ancient and Historical Monuments of Scotland © Crown copyright)

Templar tenement in Netherton, this suburb was presumably developed before the dissolution of that Order in 1312 (RMS, x, no 77).

This medieval street pattern, in existence by the end of the 15th century, evidently proved sufficient for the burgh until 1752, when a new route to the south was made along Guildhall Street and New Street (now St Margaret Street) (Henderson 1879, 458 & 479). By 1771 new streets were laid out to provide a new western approach along Pittencrieff Street, Chalmers Street and Bridge Street. Monastery Street, Canmore Street and St Margaret Lane (now Abbey Park Place) were



ILLUS 3 Plan of historic sites and monuments (Based on the Ordnance Survey map © Crown copyright)



ILLUS 4 John Slezer's (1693) 'Prospect of the Town & Abby of Dumfermling' (Trustees of the National Library of Scotland)

also in existence by then (RHP 199); and Knabbie Street, now Carnegie Street, was laid out as an intended new access from the west shortly afterwards (Henderson 1879, 500).

HISTORY OF THE BURGH

Dunfermline has been associated with Malcolm III (1058–93) since the 11th century and his residence may have acted as a focus for the development of a dependent settlement. It was also the centre of a shire (Reg Dunf, 425), where the king, or his representative, the thane or sheriff, received payment of rents in kind and labour services from the tenants. The names of two of the royal officials at Dunfermline are recorded. Before 1128 David I ordered Swain, the *prepositus* (steward or sheriff) to ensure that the Prior of Dunfermline received as much work from the abbey's men as the king received from his own men (Lawrie 1905, no LXXXV); and Gillebride was sheriff of Dunfermline at the start of the reign of William the Lion (Barrow 1960, 47).

The nature of the rents collected at the shire centre can be ascertained from the royal endowments granted to Dunfermline Abbey by David I (1124–53): the teind of the king's cain (tribute rendered to a lord, later rent) brought to Dunfermline from Fife, Fothrif and Clackmannan in flour, cheese, provend (corn or oats? [Barrow 1960, 33]), malt, pigs and cows; the teind of all deer brought there; half of the hides, fat and lard of all beasts killed for feasts held in Stirling and between Forth and Tay; every seventh seal in addition to the teind of seals taken at Kinghorn; a teind of salt and iron brought to the king's use at Dunfermline; a teind of the gold brought to the king from Fife and Fothrif; and a teind of wild horses in Fife and Fothrif (Lawrie 1905, nos LXXIV, LXXVIII, CIII, CCIX). Malcolm IV (1153–65) granted a half of the fat of all whales taken between Forth and Tay for the lights of the abbey's altars (Barrow 1960, 243–4).



ILLUS 5 John Wood's (1823) 'Plan of Dunfermline' (Trustees of the National Library of Scotland)

William the Lion (1165–1214) added the teind of his revenues in wheat, malt and oats from Kinghorn and Kellie and the teind of eels from Forthar (Barrow 1971, 194–5). Labour services due to the king included work on castles and bridges, from which the men of the abbey were exempt (Barrow 1960, 243).

Such amounts of provisions and goods being brought to the royal residence at Dunfermline would have required a large number of servants and craftsmen to process them into food and finished products for use or sale, in addition to barns, workshops, sheds and yards to store them and houses for the servants and craftsmen. There was no room for such a settlement to grow at Tower Hill itself (P), the presumed royal seat; instead the area to the west side of the Tower Burn, north or west of Tower Hill, seems likely to have been the location of this settlement (J) (Webster & Duncan 1953, 16). This is assumed from a grant by David I to Dunfermline Abbey, in which part of Dunfermline is described as citra aquam in qua eadem ecclesia sita est (beyond the water in which the same church is situated) (Reg Dunf, 3). This settlement formed the nucleus of the early royal burgh of Dunfermline, but is presumed to have failed; while a suburb beside the abbey prospered and developed into a separate burgh of regality of the abbot (Webster & Duncan 1953, 16). The site of the royal burgh on the west side of the Tower Burn became part of the barony of Pittencrieff.

The first reference to a burgh of Dunfermline is recorded early in David I's reign, when he granted a dwelling in his burgh there to the monastery of Dunfermline between 1124 and 1127 (Lawrie 1905, no LXII). After David's reign there are no more references to the king's burgh of Dunfermline; instead papal confirmations in 1182, 1184 and 1234 imply that the abbey claimed to have possession of the burgh on its side of the Tower Burn (Webster & Duncan 1953, 15–16).

This disappearance of the royal burgh of Dunfermline is reflected in Dunfermline's decline as a royal residence. David I issued 12 charters there, and Malcolm IV seven (Barrow 1960, 28). But under William the Lion Kinghorn replaced Dunfermline as a favoured residence: he issued 12 charters from Dunfermline, mostly in the earlier part of his reign, but 21 from Kinghorn (Barrow 1971, 28). In the 13th century Alexander II (1214–49) and Alexander III (1249–86) issued only two and one charters respectively at Dunfermline (McNeill & MacQueen 1996, 162 & 163). While kings could reside without issuing charters, it is clear that Dunfermline was no longer an important royal centre. It has been suggested (Owen 1997, 127) that a reference in *The Romance of Fergus* (composed in the early 13th century) to a 'Saracen' castle at Dunfermline may refer to the castle's dilapidated state. It is not clear if this decline in royal status caused or reflected the failure of the royal burgh. Nevertheless, it was at Dunfermline that the Auld Alliance with France was ratified in 1296, this being the first occasion that Scottish burgesses were represented in national politics (Nicholson 1974, 47).

No formal grant of the royal burgh of Dunfermline to the abbey exists, nor of the creation of Dunfermline as a separate burgh of regality (nor did the monks see fit to forge such grants, although they forged a charter from Malcolm III). Rather, the suburb on the east bank of the Tower Burn continued to develop as its parent settlement — the king's burgh on the west bank — gradually disappeared. This suburb seems to have maintained its burghal status, in theory as a royal burgh, although in practice as burgh of the adjacent abbey, throughout the 13th century. Its emergence as a nucleus of settlement was underscored in December 1303 when Edward I of England, while wintering at Dunfermline, ordered the burgesses to surround the town with a ditch (Webster & Duncan 1953, 16–17). The final confirmation of the transition of Dunfermline from a royal burgh into a burgh of the abbot was the recognition by Robert I in 1321 that Dunfermline, Kirkcaldy, Musselburgh and (South) Queensferry were burghs in the regality of Dunfermline Abbey (Duncan 1988, 456–7).

The burgh continued to flourish in the 14th century when it returned to favour as a royal residence (below). Dunfermline also participated in overseas trade, although it was not a royal burgh. Robert I in 1321 granted the abbey his 'great new custom' on the export of wool, woolfells and hides from its regality and a cocket seal to certify that customs had been paid on these goods, as well as writing to the town of Bruges in the Low Countries to validate the abbey's cocket (Duncan 1988, 456–8). David II confirmed in 1363 the monopoly of the burgesses of the abbey's four burghs to trade within the abbey's regality in wool, woolfells, hides and other merchandise (Henderson 1879, 138–9). David also granted or confirmed at the same time to the abbey, its burgesses and merchants a harbour at Grange of Gellat or Wester Rosyth (now Limekilns) (Henderson 1879, 139).

In 1395 the burgh secured fiscal autonomy from the abbot with the grant of a feu-ferme charter, whereby the abbot surrendered his income from the burgh in favour of a fixed annual rent of 13 merks (£8 13s 4d). This charter also shows that the burgh was governed by an alderman, later provost, and bailies (ibid, 143–4). About this time, between 1365 and 1399, the merchants of Dunfermline were granted or confirmed by the abbot in a guild. This body contained gentry, churchmen, graduates, schoolmasters and tradesmen, but in reality included few merchants engaged solely in buying and selling (Torrie 1986, xvii & xxiv).

The effect of the Reformation and dissolution of the abbey on the burgh is unclear, although its choice as a favoured royal residence by James VI must have been some compensation for any losses. Just as the transition of the king's burgh into the abbot's burgh in the 12th and 13th centuries is confusing, so is the return of the abbot's burgh into a royal burgh after the Reformation. It has been claimed that a charter by James VI in 1588 made Dunfermline into a

royal burgh, but that was merely a confirmation of existing privileges (Gourlay & Turner 1978, 2). The burgh remained part of the abbey's possessions as administered by lay commendators until the grant by James VI of the lordship of Dunfermline north of the Forth to his wife, Anne of Denmark, in 1589 as part of her dower lands (Cowan & Easson 1976, 58). It seems to have been the annexation of the abbey to the Crown in 1593 that made Dunfermline into a royal burgh, since the burgh was represented in parliament from 1594 (Young 1993, 774), although after the fire in 1624 Dunfermline was considered to belong to Prince Charles, later Charles I, who had inherited it from his mother (Henderson 1879, 284 & 299).

In 1624, the burgh suffered a disastrous fire, though not apparently the first in its history as there is also a reference in 1449 to 'when the town was brint', possibly in 1444 (Torrie 1986, 14 & 162). The fire of 1624 began in Rotten Row and spread across the burgh in four hours, burning 220 tenements and rendering homeless 287 families; only the abbey and a few slated houses were spared the conflagration (Henderson 1879, 283-7).

The fire seems to have had some effect on the burgh's financial position: in 1587 it had been assessed for taxation at 18s, in 1649 at 17s, in 1692 at 16s and in 1705 at 14s. Its rival, Kirkcaldy, paid 30s, 48s, 51s and 30s, respectively (Gourlay & Turner 1978, 4-5). However, in the 18th century Dunfermline's economy prospered again as a result of coal-mining and linen-weaving. Coal was being exploited on a large scale by 1792 when there were 184 colliers in the parish. In 1740 a Society of Weavers was formed in the burgh (Henderson 1879, 435) and by 1788 there were 900 looms in the parish, which had risen to 1200 in 1792, with over 800 in the burgh (OSA, 273). This prosperity led to the growth of the town and laying out of new streets (above), beginning in the second half of the 18th century and continuing into the 19th century.

MALCOLM CANMORE'S TOWER

The ruins on Tower Hill (P) have only been identified with Malcolm Canmore since the late 17th century, when they were first specifically recorded (Sibbald & Slezer nd, fo 50; Slezer 1693, 56). The existence of the tower can be inferred from a reference in 1455 to the Tower Burn (Reg Dunf, 335) and the importance of the tower can be deduced from the burgh's earliest seal dating to between 1500 and 1523, which shows a tower, presumed to be Canmore's Tower (Henderson 1879, 145), and from the burgh's motto 'ESTO RUPES INACCESSA' (Be an inaccessible rock). John of Fordun, writing in the 14th century, describes Malcolm's settlement as 'most strongly fortified by nature, being begirt by very thick woods, and protected by steep crags. In the midst thereof was a fair plain, likewise protected by crags and streams' (Skene 1872, 202). This description does appear to fit Tower Hill, although the summit is hardly 'a fair plain'; rather it is an oval (c 37 m long by 15 m wide) connected by a narrow neck, traversed by the road through Pittencrieff Park, to the ridge on which the abbey is situated.

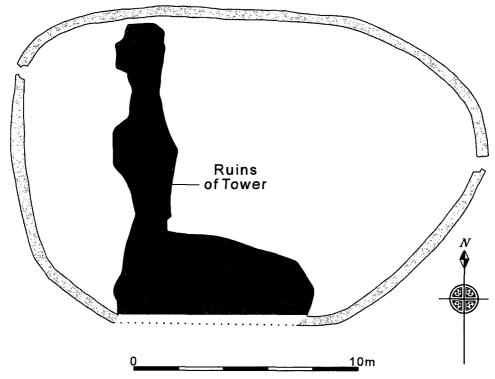
The ruins of the tower are a Scheduled Ancient Monument and comprise remains of the south and west walls of a presumed rectangular stone structure, traditionally identified with the residence to which Malcolm Canmore brought St Margaret. Their dilapidated condition makes architectural dating impossible, but they are substantially unaltered from 1790, although repairs to the stonework have been undertaken in the past and recently. In 1790 the ruins were recorded as 44 ft (13.41 m) north/south and $49\frac{1}{2}$ ft (15.08 m) east/west (Baine 1790, no 2). The former measurement is virtually the same as today's, which is at least 12.8 m (the south end is obscured by ivy), but the latter is considerably more than the present length of c 9 m, which corresponds with the measurement of 31 ft (9.44 m) recorded in 1844 (NSA 1845, 848). Baine seems to have included an estimated length in his measurement, the basis of which is unclear: a length of 12½ ft



ILLUS 6 Malcolm Canmore's Tower from the north (in 1988)

for the south wall from the corner with the west wall (RCAHMS 1933, 122) must be an error for $21\frac{1}{2}$ ft.

Nothing is known for certain of the origins of the ruins, but excavations by SUAT in 1988 (9) indicated that they probably date from the 14th century on pottery evidence. The site has been extensively disturbed in the 19th and 20th centuries. In 1843 an excavation by the landowner (1) produced only charcoal and an iron coin punch (Scott 1857). The punch was originally considered to be a forgery (Chalmers 1859, 120), but has since been attributed to David II (1329-71) (Laing 1969, pl 3). The latter certainly coincides with the pottery evidence recovered in 1988. In 1883-4 the landowner cleared the site and laid it out for display, constructing the present boundary wall around the ruin with stones reused from the estate's eastern entrance, by the palace. In the course of this work hewn stones were found at the Tower (Dunf Press, 19 Jan 1884, 2). Following Andrew Carnegie's purchase of the Pittencrieff Estate, the northern cliff-face of Tower Hill was completely refaced artificially in 1905-6, during the course of which animal bones 'of birds and the lower animals', including the jaw bone of a boar and the shoulder blade of a deer, and pottery were found; also recovered were a small bronze medal and a lead seal with 'AR' on it. At the base of Tower Hill were found the (fossilized?) remains (head and part of the vertebrae) of a large reptile. A cave, with evidence of human occupation in the form of ashes and a 'rude fireplace', was also found in the cliff-face (Dunf J, 8 July 1905; 11 Aug 1906; Dunf Press, 29 July 1905, 4; 12 Aug 1905, 5). Pottery and a collection of pins, now in Dunfermline Museum, may have come from this work.

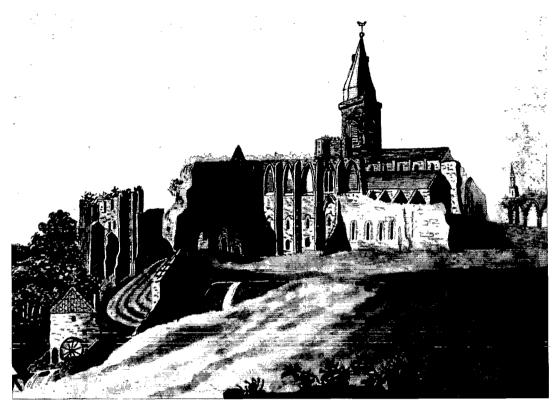


ILLUS 7 Plan of Malcolm Canmore's Tower

If the ruins do date to the 14th century, they could have originated as a defensive tower guarding the western approaches to the burgh and abbey during the troubled times of the Wars of Independence. Edward I of England resided at the abbey during the winter of 1303–4. Dunfermline was an important royal residence in the 14th century, where both David II and James I were born in 1324 and 1394 respectively, presumably in the abbey's guest house, which developed into the later palace (CC). The need for security would, therefore, have been great during these troubled times. A date in the 14th century for the present remains does not, of course, preclude the existence of an earlier royal residence on the site. But the narrow width of the summit available for occupation must exclude anything but a small royal settlement.

THE ABBEY

It was in the church of Dunfermline that Malcolm III married St Margaret about 1070. Margaret subsequently brought two Benedictine monks from Canterbury under Prior Goldwine, to her newly built church of the Holy Trinity. Stone foundations were excavated under the floor of the nave in 1916–17 (3) and their outline is marked in the present floor. They indicate a tower-nave and choir, to which were added a larger choir and apse (Fawcett 1990, 4). These foundations may represent either the church in which the marriage took place and Margaret's new church, or Margaret's new church with a later addition by her son Edgar. Margaret's foundation maintained its existence after her death in 1093, receiving grants from successive kings of Scots, Duncan II (1094), Edgar (1097–1107) and Alexander I (1107–24) (Lawrie 1905, no LXXIV). Edgar also



ILLUS 8 Drawing (anon) of Dunfermline Abbey and Heugh Mills, c 1820 (Royal Commission on the Ancient and Historical Monuments of Scotland © Crown copyright)

secured more monks from Canterbury. David I raised the church, hitherto a priory, to an abbey in 1128 and built a new church, dedicated in 1150. In the following century an extension was built to the east with a shrine chapel at the east end, to which were translated the remains of Margaret and Malcolm in 1250 (Fawcett 1990, 6, 7 & 17).

Dunfermline replaced Iona as a royal burial place from 1093 to the early 15th century, eight kings, five queens, six princes and two princesses being buried there (Dilworth 1995, 58). In the 18th century the royal tombs were thought to have been on the north side of the choir under six large stone slabs (12). The last royal burial was an infant son of James VI in 1602, possibly in the burial vault constructed for James VI's wife, Anne of Denmark, outside the east end of the south side of the nave, which she disponed to Sir Henry Wardlaw of Pitreavie in 1616 (Fawcett 1990, 13). As a royal foundation, the abbey was richly endowed with lands and rents, as well as 18 appropriated churches (Cowan 1967, 216–17). At the Reformation its income was £9600, and it was the third wealthiest monastery in Scotland after St Andrews Cathedral Priory and Arbroath Abbey (Dilworth 1995, 42).

The wealth and power of the abbey led to interference by King and Pope in the choice of abbot: in 1350 the Pope rejected the candidate elected by the monks in favour of his own nominee, and in 1470 James III (1460–88) imposed his own nominee, Henry Crichton, Abbot of Paisley, on the monks. This latter nomination was regarded by Bishop Lesley a century later as marking the beginning of decay in monastic life in Scotland, with the imposition of seculars as abbots (ie

persons from outwith the religious order) (Webster 1948, 50). From 1500 the abbey was ruled by commendators, who enjoyed the revenues of the abbey but did not generally exercise religious duties. Among the commendators were the brother and illegitimate son of James IV (1488–1513). In 1589 the monastery of Dunfermline was granted by James VI to his wife, Anne of Denmark.

The remains of the abbey church (illus 4 & 8) comprise the 12th-century nave and part of the foundations of the east end of St Margaret's shrine chapel, completed by 1250. The northwest tower was rebuilt by Abbot Bothwell (1446–82) and capped by a later spire. The south-west tower was built in 1810-11 after its predecessor collapsed in 1807. The nave, which served as the parish church, survived the Reformation and continued in use until 1821. The massive buttresses on the south and north sides of the nave were built in 1620 and 1625 respectively (Fawcett 1990). The eastern part of the church, consisting of the presbytery, choir, transepts and shrine chapel, was abandoned and fell into ruins. The remains were cleared away when the present parish church was built on the site in 1818–21.

Little remains of the east and west claustral ranges, though there are substantial remains of other buildings to the south. Edward I of England repaid the monks for their hospitality by razing the abbey in 1304. It was still being rebuilt in 1329 (Fawcett 1990, 19). Richard II of England also razed the abbey and burgh in 1385 (Webster 1948, 219). The west range of the cloister was under construction or repair in 1520 (Webster & Duncan 1953, 167). After the Reformation the claustral buildings were allowed to fall down, the collapsed stonework filling the undercrofts, and the site of the cloisters was levelled to form a bowling green. In the 19th century part of the cloister area was used as a burying ground and, therefore, is now unavailable for excavation.

Excavations within the area of the monastery in 1855 by Ebenezer Henderson revealed the east and north wall foundations of the monastic frater or refectory on the south side of the cloister, the south and west walls of which still stood to full height, and the outer kerb of the east claustral range; the stair tower at the north-west corner of the frater was cleared of rubbish and a passage in the west gable of the frater was revealed (2). In 1920-4 these areas were re-excavated (4), exposing a fragment of the undercroft of the monks' dormitory and reredorter or latrine on the east side of the cloister, as well as the foundations and undercroft of the frater. The former date from the late 13th century, surviving Edward's destruction, while the latter date from the 1320s. The abbey gatehouse, at the west end of the frater, and adjoining guest house date from the 15th century (Fawcett 1990, 18, 20 & 22).

Excavations in 1975 (7) in the Pends revealed that the gatehouse was additional to both the frater and guest house; it possibly replaced an earlier gatehouse, represented by a wall stub. No trace survives of the west range, except a stair tower at the junction with the refectory. The west range was replaced in 1753 by a stable and byre (Henderson 1879, 465). Remains of the northern end of the west range may have been disturbed during levelling operations in 1822, when the stable and byre on the site were demolished (ibid, 612).

In addition to the abbey church and cloisters, there would have been other buildings within the precinct: an infirmary, abbot's house (if, despite its name, Abbot House was not the abbot's house), and byres, stables, barns, sheds and dovecots to house the monks' animals and food stores. The precinct would also have contained orchards and herb or kitchen gardens. In the north-east corner of the precinct was the fish pond (EE), fed by a conduit from the abbey mill dam (A). Other conduits supplied the monks' refectory and reredorter or latrines and the Heugh Mills (DD) below the monastery. After the Reformation, the precinct became the King's or Abbey Park, and in the 18th century the eastern part was used as a bleachfield (Henderson 1879, 441-2).

The abbey buildings were enclosed within a precinct wall extending from the abbey north along St Catherine's Wynd, east along Maygate, Abbot Street and Canmore Street to about 50 m west of New Row, then south to Priory Lane, and west to St Margaret Street. From there the wall seems to have divided. An inner wall turned north along St Margaret Street then west along Monastery Street to adjoin the southern end of the cloister buildings; while an outer wall continued north-westwards from the Nether Yett (FF) to adjoin the palace block (CC). The wall was pierced by a number of entrances, of which only a fragment of one survives, the Nether Yett, with an adjoining fragment of the outer precinct wall (these are a Scheduled Ancient Monument in the care of Historic Scotland). This yett was removed in 1751 (Henderson 1879, 456). The Watergate (S) was an entrance into the precinct from St Catherine's Wynd, beside the conduit feeding the abbey's fish pond. The foundations of a clay-bonded wall on an east/west alignment, found under the road surface of the Wynd, may have been associated with this entrance (24). A postern also gave access from the Wynd to the precinct. A pathway between a wall and a kerb, uncovered in excavations at Abbot House (10), may indicate the site of a former entrance for pilgrims from Maygate to St Margaret's shrine. This path may have been replaced, after the construction of Abbot House, by another path, which formerly led from the east end of Maygate to Monastery Street and was closed as late as 1790 (ibid, 522–3).

Various chance discoveries of burials and objects of unknown date, presumably medieval, have been made in the past on the site of the abbey. In 1759 a female skeleton was discovered by a workman in an old wall in the sunken garden of the bowling green on the south side of the church. A stone coffin with a female skeleton, an iron chest containing silver coins of unknown date, and a double-handled silver cup, were found in 1766 when the ruins of the Lady Chapel on the north side of the choir were removed to make way for the Elgin burial vault (ibid, 485). In 1802 a large stone coffin was found in the Psalter Churchyard (on the site of the former abbey choir), along with fragments of marble, some gilded (ibid, 549). During an exploratory excavation in 1807 (12) a stone-lined grave, with capstones and traces of lime, containing the skeleton of an adult, was found c 1.5 m beneath the ground surface on the north side of the former choir (ibid, 559-61). The supposed grave of Robert I was found in 1818 when the new parish church was built on the site of the abbey choir (ibid, 594-5). In 1849, when the floor of the nave was levelled, two stone coffins, carved of single blocks of stone, were found at the east end of the nave (Chalmers 1859, 142-3). About 12 stone coffins were discovered during grave digging in 1855 at the south-east corner of the Abbey Church (ibid, 135; Henderson 1879, 670). A water conduit, with sides and top of stones neatly joined, on a north/south alignment was found in 1859 in the South Churchyard. The top of the drain was sealed with clay (Chalmers 1859, 135; Henderson 1879, 678). During grave digging in the Psalter Churchyard in the early 19th century small fragments of white marble with traces of gilding, fragments of moulded stones, floor tiles and painted glass were found (ibid, 561-2). An octagonal silver brooch, inscribed IHESVS NAZARENVS REX IVDEORVM, was found in the abbey nave and is now in the collections of the National Museums of Scotland (Callander 1924, 168, 171 & 176), as are a crucifix of cast lead, found in the drain below the frater undercroft, and a Crossraguel penny and two French jettons found in the frater undercroft (PSAS 1939, 334).

Traces of the precinct wall have been found during archaeological investigations at several points. A fragment of the north wall is incorporated into the foundations of Abbot House in Maygate (10). A part of the east wall was found at the former Lauder Technical college (11): it was 0.9 m wide, survived to a height of 0.5 m, and was composed of a sandstone rubble core between mortar-bonded, roughly dressed, sandstone rubble. The east wall had replaced an earlier boundary ditch (at Paisley Abbey a ditch preceded the later precinct wall [Reg Pass, 408]). The

course of a clay-bonded wall, thought to be the west precinct wall, was observed in a gas pipe trench along St Catherine's Wynd (24). This may have been the former churchyard wall removed in 1822, when St Catherine's Wynd was widened (Henderson 1879, 612). Remains of a path were found around the inner edges of the north and east walls.

Three successive metalworking workshops were found in the garden to the south of Abbot House (10), dating to the earliest occupation of the site in the 12th and 13th centuries. The location of these early workshops within the abbey precinct implies that they would have been used for work on the abbey and its buildings and furnishings, rather than for secular commercial and industrial purposes. The workshops were sealed beneath rubble, which may have derived either from the sacking of the abbey buildings by Edward I in 1304 or from the reconstruction of the east end of the choir, completed before 1250. Afterwards the area was used as part of the parish cemetery, which lay on the north side of the abbey, the south side being occupied by the cloisters. The burials extended as far north as 2 m from the back wall of the main block of the house (Bailey 1994), but none was found under the house itself.

Beside the east precinct wall were the flimsy remains of a corner of a clay-bonded stone building, incorporating reused ashlar blocks, attached to which may have been a wall enclosing a yard or orchard (11).

Drainage seems to have been a problem in the precinct, doubtless due to the fish pond and clay subsoil. Medieval and post-medieval drains and conduits have been revealed in archaeological fieldwork in the precinct area, although it is not always clear whether they carried water to or from the abbey buildings. A medieval drainage channel filled with cobbles was associated with the building by the east precinct wall (11). Two similar drains were considered to be Early Modern, possibly associated with a building formerly on the site or with the former bleachfield. A box drain, composed of stone sides, capstones and stone base, was also found. Similar box drains, with or without stone bases, have been found inside Abbot House and under its garden (10) and at Buchanan Street/Priory Lane (17). Two of the drains inside Abbot House were associated with the metalworking activity in the building, and may have served quenching troughs. In the garden was a substantial stone-built drain on an east/west alignment, c 1.2 m in internal height, possibly the 'gutter under the graves' ordered to be made in 1660, when persistent flooding in the kirkyard was a problem (Henderson 1879, 332). This drain still carried water in 1992, flowing westwards; it may have been part of a drain encountered by excavations in St Catherine's Wynd/Kirkgate (24). Other stone and clay drains dating to the 18th and 19th centuries testify to continuing drainage problems around and under Abbot House. Trial trenching in the southern area of the precinct at Buchanan Street/Priory Lane (17) revealed a medieval conduit, of stone slabs for the base, sides and capstones, on an east/west alignment, bisected by a later stone drain on approximately NW/SE alignment. The conduit may have supplied water to monastic outbuildings, workshops, gardens or orchards.

The abbey also had a sanctuary house for debtors and criminals on the north side of Maygate (R), which was removed in 1819 (Henderson 1879, 600).

OTHER RELIGIOUS BUILDINGS

St Margaret's Cave (D) is traditionally associated with Queen Margaret, who allegedly used the secluded spot for her private devotions. It is supposed to have been fitted up for her use by Malcolm Canmore. The sides of the cave are lined with stone seats carved from the rock, and three niches are carved into the southern side of the cave, one inside, two outside (ibid, 18-20 & 714-15; Coles 1911, 293-7).

St Catherine's Chapel (Q) lay to the north-west of the abbey church, beside the abbey's almshouse, with which it was united in 1327. The almshouse was described as being 'outside the port', assumed to be a reference to the West Port of the burgh, rather than an entrance to the abbey precinct. It was demolished before December 1420 when the buildings were in the course of reconstruction by the almoner of Dunfermline Abbey. In 1566 the chapel was in need of repair. In 1569 the hospital and chapel comprised 'houses, buildings, a garden or orchard and dovecot and a little garden'. Parts of the buildings may have survived till the beginning of the 20th century when they were demolished. The buttressed foundations on the west side of St Catherine's Wynd may be all that remain of the chapel and hospital (RMS iv, no 2969; Whitehouse 1905, 115; RCAHMS 1933, 114; Webster & Duncan 1953, 185–90; Cowan & Easson 1976, 175).

No trace now exists of St Ninian's Chapel (F), founded by Master John Christison, Vicar of Cleish. It was in existence in 1530 and stood between High Street and Rotten Row (now Queen Anne Street) (Beveridge 1917, 267 & 270).

Sir Andrew Moray, Guardian of Scotland, who died in 1338, granted an endowment to St Mary's Chapel (*HH*); his being referred to as the king's brother suggests that the grant may have taken place before the death of Robert I, his brother-in-law, in 1329. It stood on the south side of Netherton, at the top of Elgin Street. It was damaged by Cromwell's troops in 1651; a wall was blown down in a storm in 1783 and the last remains were cleared away in 1814 (Henderson 1879, 326, 512 & 585; Beveridge 1917, xxix; Webster 1948, 83).

Between 1488 and 1516 there are references to an almshouse, above which was a 'loft house'. It stood outside the East Port on the north side of the road (W), but no other information is known about it (Beveridge 1917, 2, 300, 334 & 341; Cowan & Easson 1976, 174).

St Leonard's Hospital lay outside Netherton on the road to Queensferry (6). It is not specifically referred to before the Reformation, although it is thought to be a medieval foundation. In 1584 John Angus, a brother conventual of Dunfermline Abbey and the king's daily orator, was described as for 'diveris yeiris bypast, preceptor and elemosinar of the hospitall of Sanct Leonard besyde Dunfermeling' to which pertained certain acres and crofts. The rents and duties of these lands were paid to the support and sustenance of the 'pure bedrellis and wedowis in that pairt, according to the auld fundatioun thairof' (RSS, viii, no 2713). It is possible from a reference in Henryson's poem, The Testimony of Cresseid, to the 'Spittaill hous' about half a mile from an abbey that this hospital was in existence by the late 15th century and may have been a leper hospital. It was presumably a possession of the abbey as Anne of Denmark was its patroness in 1610. Its chapel is said to have been wrecked by Cromwell's soldiers after the Battle of Inverkeithing or Pitreavie in 1651. The hospital is mentioned until April 1651 when its buildings were evidently in a state of disrepair, although remains were still standing in 1779 and the south wall did not fall until 1798. Attached to the hospital was a graveyard still in use until about 1798. Bones from the graveyard were exposed about 1890 and again during excavation in 1975 (6), when some 40 burials were found as well as a wall foundation of uncertain purpose. The site is now occupied by an Asda store and its car park (Henderson 1879, 169-70, 326, 506 & 538; Beveridge 1917, xxix; Cowan & Easson 1976, 175).

THE ROYAL GUEST HOUSE OR PALACE

As at Holyrood Abbey, Dunfermline Abbey had a royal guest house which was adapted and enlarged as a royal palace. (Presumably there was more than one guest house for visitors of different quality and status.) This guest house appears to have replaced the royal castle in Dunfermline, wherever that may have been. If the castle was abandoned in the late 12th century

(see above) in favour of the abbey, it was presumably in the guest house that Alexander III resided when, in the Ballad of Sir Patrick Spens, 'The king sits in Dunfermling toune / Drynking the bluid-red wyne'.

Edward I of England stayed in the abbey in 1303-4, and presumably also on his earlier visits in 1291 and 1296. In his sack of the domestic buildings in 1304 he may have spared the guest house where he himself had stayed, as he visited Dunfermline again a couple of months later (Henderson 1879, 113). Robert I (1306–29) seems to have been the first king since the early part of William the Lion's reign to have resided in Dunfermline for any length of time, issuing six charters there, and his son and successor, David II, was born there in 1324. In the later 14th century Robert II (1371-90) and Robert III (1390-1406) issued 15 and 18 charters respectively from Dunfermline (McNeill & MacQueen 1996, 173-5). Robert III's son and successor, James I (1406-37), was also born in Dunfermline. It may have been in either the guest house or other abbey buildings that a council in 1336 reappointed Sir Andrew Moray as Guardian of Scotland (Nicholson 1974, 133), Dunfermline continued to be used as a royal residence in the 15th and 16th centuries. James IV (1488–1513) may have carried out work on the royal guest house, from a fireplace dating to 1500, as may James V (1513-42) from a stone bearing his arms impaled with those of his wife, Marie de Guise, now displayed in Historic Scotland's visitor centre at the abbey but formerly, in 1790, built into a stable (Baine 1790, no 8). However, it was not until after the annexation of the monastery to the Crown in 1589 and its grant to Anne of Denmark as part of her dower by James VI that the guest house was enlarged and converted into the palace.

The palace occupied three sides of a triangular courtyard at the south-west corner of the abbey and incorporated the west range of the abbey cloisters (at right in illus 4). The south-west range comprised the extended abbey guest house, attached to the abbey gatehouse at its east end. At the north angle of the courtyard, close to the south-west tower of the abbey was the Queen's House (Y), erected for Anne of Denmark and incorporating the main gate to the palace from St Catherine's Wynd. The north-west range extended from the Queen's House to the west end of the south-west range. It was in this new palace that James VI's children were born: Elizabeth, later to become Winter Queen of Bohemia, in 1596; Margaret in 1598; Charles I in 1600; and Robert in 1602. On the east side of the Queen's House was the Constabulary and Regality House (AA), which housed the meetings of the regality court. The last recorded repairs to the palace were in 1633, in anticipation of a visit by Charles I, after which the palace was neglected. It was already derelict by the early 18th century, part of the walls and roof falling in 1708 (Henderson 1879, 382), and only the Queen's House was in use. The north-west range was removed in the course of the 18th century. By the late 18th century, the Queen's House was in disrepair and was finally demolished between 1790 and 1792; both it and the Constabulary House are shown on a sketch plan by Baine (1790, no 2) but neither are depicted on a drawing by Edward Dayes of the abbey west front in 1792 (RCAHMS, NMRS, A59164).

Only the façade and undercroft of the south-west range of the palace now survive. The east end of this range comprises an undercroft with a kitchen above, with the remains of the abbey guest house adjoining, all dating to the late 15th century, while the west end was rebuilt in the late 16th century for Anne of Denmark and contained what may have been the queen's chamber (Fawcett 1990, 23-7).

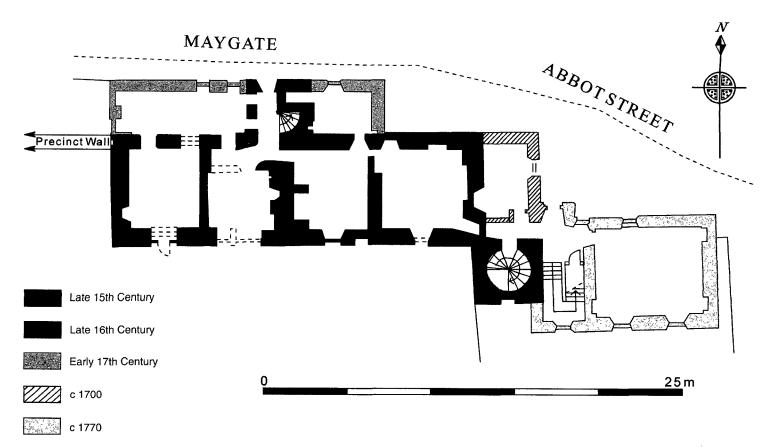
In 1812 the palace ruins were in the care of the Laird of Pittencrieff, who undertook repairs, in the course of which was found the 'Annunciation stone'. This stone formed the ceiling of an oriel window in the second storey of the palace and bears the arms of George Durie, Commendator of Dunfermline from 1526 until his flight abroad in 1560 (Henderson 1879, 579-80 & 678-9); the stone, too, is now displayed in Historic Scotland's visitor centre. However, in 1871, following a long dispute, the Crown secured possession (ibid, 695) and the ruins are now a Scheduled Ancient Monument in the care of Historic Scotland. As with the south cloister range, the sloping ground of this range of the palace led to the preservation under collapsed building debris of the undercroft. In 1975 the remains of a possible porch attached to the south-west range were revealed at a depth of 1.5 m (7). It is, therefore, possible that remains of the north-west range survive below the existing ground surface. In 1853, the ground between the Pends and the western entrance to the abbey was cleared of stones and rubbish (ibid, 668).

ABBOT HOUSE

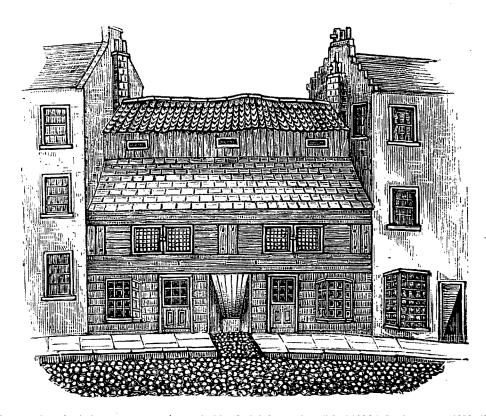
This building (U) has been known as Abbot's House (the name Abbot House was adopted during the recent restoration of the building in 1992-4) since at least 1790 (Baine 1790, no 3). Recent historical research, conducted as part of the restoration programme, has shown that it has no connection with Robert Pitcairn, Commendator of Dunfermline, who died in 1584, though he was formerly believed to have built it. The building had belonged to the abbey and was known as the 'Great Ludging of Dunfermline'. (The 'Great Ludging' was at one time thought to be an adjoining building to Abbot House [Webster & Duncan 1953, 192].) Despite the absence of any record of its use as the abbot's lodging, it was in a good position for such a purpose. There are references in the burgh records to a 'sklathous one [on] kyrkyard dik' belonging to John Orok in 1489 and to a domus tegulata (probably a slated house rather than a tiled house) in Maygate on the north side of the parish church and cemetery belonging to the late John Welwood in 1520 (Beveridge 1917, 13 & 287). Given the rarity of stone structures at those dates (see below), it is likely that both references are to the structure now known as Abbot House. Its first definite owner, in 1550, was William Coupar, Burgh Treasurer. Subsequent owners included James Murray of Perdieu in 1570, the Earls of Dunfermline and the Earls, later Marquesses, of Tweeddale in the 17th century (Coleman 1996a, 70; Yeoman 1994, 18).

The house has undergone many alterations and additions since it was first built in the 15th century (illus 9). The original rectangular house comprised three, later four, rooms on the ground floor and incorporated into its fabric a fragment of the foundations of the abbey's north precinct wall: a window, dated to the 15th century, was discovered in the precinct wall during the recent renovations. In the 1570s two stair towers were built, one on the north façade, encroaching on Maygate, the other at the south-east corner. This was the work of James Murray of Perdieu, who may also have commissioned the wall painting, based on a German edition of Virgil, in the upstairs hall. Rooms were built over Maygate on either side of the north stair tower in the early 17th century. About 1700 a small room was added in front of the south stair tower and about 1770 an eastward extension built. Other buildings were added to the west of the house in the 18th and 19th centuries, but these have since been demolished (Coleman 1996a).

Excavations (10) inside the house have revealed a depth of over 0.5 m of surviving archaeological deposits. The ground floor of the building was initially used as workshops for metalworking, as evidenced from the hearths and bowl-shaped furnaces, slag, ash and charcoal found in the excavation. The first known owner, William Coupar, a smith, provided ironwork — a yett and windows — for James V's palace at Falkland (Paton 1957, 260 & 284). The upper storey was presumably living accommodation despite the smoke, noxious gases and inherent fire risks associated with the craft being practised on the ground floor. Internal features of the house included late medieval floor and occupation levels, post-holes, hearths and a furnace, a post-medieval stone tank and a post-medieval cess-pit, as well as the drains mentioned above.



ILLUS 9 Plan of Abbot House



ILLUS 10 Drawing of a timber tenement on the south side of High Street, demolished 1825 (after Henderson 1879, 621)

OTHER DOMESTIC BUILDINGS

The domestic buildings of the burgh were initially constructed of timber, with thatched roofs. References to slated houses in the burgh in the 15th and 16th centuries are few, only three being referred to in the 16th century: one in Maygate (probably now Abbot House, see above); one on the north side of High Street, to the west of the market cross in 1520 and 1566 (Beveridge 1917, 219 & 287); and one behind the tolbooth in 1506 (ibid, 349). The latter was an 'over sclait hous', implying at least two storeys. The house in High Street belonged to the Welwood family, who had fallen on hard times by 1566. In 1520 they had two slate houses (domus tegulata), in Maygate and High Street. In 1566 the latter house was 'now rouinous and appeirand to dekay in the goistis, strutis and tymmer of the ruiff and sklattis . . . and the north syde of the foir hous thekit witht duffet be taiking of the sklattis to mend the foir syd': the slates on the rear part of the roof (not visible from the street) of the house on the frontage had been used to repair the front part (visible from the street) and replaced with divots. The backland of the house (here, the rear wing of the building on the frontage) was 'doune and waist'. That timber or partly timbered houses could have slate or tile roofs is evident from the description and illustration of a house on the south side of High Street demolished in 1825 (illus 10): it had a stone ground floor, with a timber upper storey, supporting a slated roof, rising to a timber garret, supporting a tiled roof; stone chimney heads at each gable suggest that the gables were of stone (Henderson 1879, 620-1). Presumably the stone ground floor represents a later infilling under a projecting upper storey.



ILLUS 11 Photograph of 32 Maygate during renovation, showing the former arcaded frontage (Mr R McEwen, Dunfermline)

The upper storey of such buildings could be independent of the ground floor, which was occupied by booths or shops. It was approached by a forestair encroaching on the street, as in the stair tower built on Maygate at Abbot House. The over slate house behind the tolbooth, and the loft house above the almshouse (W) outside the East Port, both already mentioned, would have had access separate from their ground floors. Sometimes the timber upper storey jutted out over the street, the ground floor being later extended out to infill the overhang: in 1741 it was claimed that all or most of the houses in the burgh had timber forestairs, and that some had 'auderys' (meaning unknown, but possibly a mis-reading of 'aumberys', or wall cupboards) without stone pillars below, heritors being allowed to build out as far as the stone pillars, incorporating them into a stone wall (ibid, 439). In 1772 the council took steps to remove 'out-shots' or stairs on the streets (ibid, 495).

The fire of 1624 seems to have encouraged greater use of stone as a material for domestic buildings. A 17th-century stone house with an arcaded frontage was noticed recently during renovations at 32 Maygate (T; illus 11). Such arcaded structures are also found at Gladstone's Land in Edinburgh's Royal Mile, at Glencairn's Lodging in Dumbarton High Street, both early 17th century and in Elgin High Street, dating to the later 17th century. That Dunfermline had, or may still have, concealed behind harling or cement facing, other such arcaded frontages is evident from the reference above to stone pillars. A house (G) built in 1626 by the Durie family formerly stood on the west side of Cross Wynd until it was demolished in the 1970s. It was a plain, harled

structure, with crow-stepped gables, comprising a 'laich' (basement) floor and two upper storeys (RCAHMS 1933, 122; Henderson 1879, 293–6).

EARLY SCHOOLS

The burgh had two schools before the Reformation. A grammar school (I) was located in School Wynd (now Pilmuir Street). A master of the school is recorded in 1448 (Torrie 1986, 166) and in 1468 the abbot of Dunfermline provided a house and income for the schoolmaster (Webster & Duncan 1953, 167). Robert Henryson the 'makar' is supposed to have been schoolmaster in Dunfermline in the late 15th century. The school was rebuilt after the fire of 1624 and replaced by a new school opened in 1817. Three inscribed stones from the old school, one dated 1625, were built into the new school, and are now built into the post office which occupies the site (ibid, 181). There was also a song school, probably attached to the abbey, which continued in use after the Reformation (ibid, 188–90).

WATER SUPPLY

The burgh had an efficient water system supplied from the Abbey Mill Dam (A). It owed its origins to the requirements of the abbey, which needed a water supply to its kitchen, guest house and reredorter. The surviving elements of the reredorter are dated to the late 13th century (Fawcett 1990, 20), and the water system could have been in existence about this time. The dam was situated in boggy ground to the north of the burgh and was fed from the Town Loch. A lade carried water from the dam, first to the Collier Row mill (C), then down Collier Row and Kirkgate. It is not clear exactly how it entered the abbey precinct. It may have entered at the Watergate (S), or it may have flowed along Maygate, whose name may mean Watergate (Chalmers 1859, 196 & pl 1). (There seems to be confusion between Watergate as a street and the Watergate as an entry to the precinct; it is possible that there was only one 'Watergate', though whether the street or the entry is unclear.) The lade then supplied the abbey latrines and frater before exiting the precinct to the south to power the Heugh Mills (DD). For much of its length through the streets, this lade, sometimes called the Tron Burn (Henderson 1879, 472), was flagged. (Main Street in Newton upon Ayr also had a mill lade, open in this case, running the length of the street to power a mill by the River Ayr.) In 1518 Thomas Fyn, the miller, was ordered by the council to 'big, mend and flag the burne fra the myl of Colyerau to the nuk besid the abbay wall'. Anyone taking up the flags or breaking them was to pay a double fine and any middens cast on the burn were forfeited to Fyn or his successors for the maintenance of the burn. Provision was made that 'all ald coundittis cumand to the burne and fra the burne' were to continue in use (Beveridge 1917, 297). This water system was presumably not to supply drinking water, for which wells would have been provided, but to provide water for the mills and waste disposal. It has been suggested (Henderson 1879, 173) that the burn, later the 'Back Burn', which was ordered to be opened at the 'west gavil of the tolbuith' in 1496, refers to the Tower Burn. However, the 'opening' presumably refers to the removal of capstones, and is unlikely to mean the Tower Burn at the bottom of Pittencrieff Glen. Instead, the reference is probably to a stoneflagged water conduit, between the west gable of the tolbooth and the 'over slate house' mentioned above, distinct from the Tron Burn on the east side of the tolbooth. A branch of the water system running through a close was to be the power source for a mill in 1756 (ibid, 468–9).

In 1763-5 a new water scheme was adopted to carry drinking water from St Margaret's Well, about 1 km north-east of the market cross, in lead pipes (replaced in 1806-7 by cast-iron pipes) to a central reservoir on the east side of Douglas Street (N). Six public wells were set up, at the Tron, at the foot of Rotten Row, in Maygate, in Horse Market (now High Street east of Cross Wynd) at the foot of Reservoir Close, in East Port at the top of New Row, and in Guildhall Street (Henderson 1879, 479, 481, 483 & 558). In 1805 householders were allowed to introduce piped water to their own houses at their own expense (ibid, 555). In 1810 filtering pits were built to purify the water, one being situated at the north-east corner of Queen Anne Street and Pilmuir Street, and in 1851 the reservoir in Douglas Street was converted into a water office (ibid, 569 & 665).

Traces of the earlier water system, maintained into the late 18th century (Henderson 1879, 495, quoting Pennant), have been identified in the course of archaeological fieldwork. Stone conduits, one north/south, the other east/west, were observed in pipe trenches in St Catherine's Wynd (21, 24). Other conduits have been seen in trenches in High Street and Maygate (10, 20, 22). Various conduits have been found within the abbey precincts (see above). All the conduits are of the same general type, with stone slabs used as the base, sides and capstones.

ECONOMY AND SOCIETY

TRADE

As the centre of an early royal shire — erected into a royal burgh by David I in or before 1127 — Dunfermline was a focus of settlement for officials and craftsmen. These were responsible, respectively, for collecting the rents in kind rendered by the tenants and for processing them into consumable products for the king and his courtiers on their periodic visits. Any surplus would have been sold or exchanged for imported luxuries, such as wine, silk or fine cloth. Indeed, the excavations at Abbot House (10) and New Row (11) recovered much imported pottery, attesting trade contacts with Yorkshire, the Low Countries, the Rhineland and northern France.

The purpose of a burgh was to act as a commercial centre through which internal and external trade could be conducted under the control of the Crown. Royal agents, prepositi (sheriffs or bailies), were responsible for collecting revenues due to the king (the firma burgi). The monks had been granted a teind of the burgh of Dunfermline's revenues by David I. To encourage the burgh's development it was granted a trading monopoly over a hinterland, whose inhabitants were compelled to buy and sell their produce and manufactures in the burgh. The trading area of the early royal burgh of Dunfermline is unknown, as is its fate during the burgh's decline and transition into the abbot's burgh. The creation of rival royal burghs at Inverkeithing, first mentioned during the reign of Malcolm IV (1153-65), and Kinghorn, first mentioned under William the Lion (1165-1214), must have had an effect, as their hinterlands would have been carved out of Dunfermline's; indeed this may have hastened Dunfermline's decline as a royal burgh. Whatever may have been the hinterland of the royal burgh of Dunfermline, the abbot's burgh was recognized by David II in 1363 as sharing, with the burghs of Kirkcaldy, Musselburgh and Queensferry, a trading monopoly in the regality of Dunfermline, which comprised the abbey's lands north and south of the Forth. In effect Dunfermline's monopoly was restricted to the parish of Dunfermline, while the monopoly over the other lands north of the Forth was disputed between Dunfermline and Kirkcaldy (except in the parish of Kirkcaldy itself, where Kirkcaldy's monopoly was undisputed).

The burgh's economy was dependent on the crops and livestock of the inhabitants of the hinterland, brought as raw materials or processed goods for sale at weekly markets and annual fairs. When a market and fair were first granted to Dunfermline is not known, but it would be logical to assume that Dunfermline already had them when, in 1305, Edward I granted the petition of the abbey for a weekly market and annual fair at Kirkcaldy (Webster & Duncan 1953, 17). Nevertheless, no mention is made of either a market or a fair in David II's grant of trading privileges to the four burghs in the regality of Dunfermline. The burgesses and merchants in each of the burghs were allowed freely to buy and sell within their burghs the goods of anyone from anywhere; and to trade within the regality in wool, woolfells, hides or any other merchandise (ibid, 24). Indeed, in 1589 it was noted that the free burgh of regality of Dunfermline had no special liberty to hold free fairs or horse markets, when James VI, at the request of the Earl of Huntly, Commendator of Dunfermline, granted two fairs to the burgh to be held on 1-2 March and 14-15 September (RMS, v, no 1629). Whether this grant merely confirmed an existing unofficial arrangement or represented a new institution is unclear. Despite the claim that Dunfermline had no right to a fair, it is clear that long before 1589 the burgh was holding a 'criit fair', St Margaret's Fair on 19 June, the anniversary of the Translation of St Margaret (Webster & Duncan 1953, 197). In 1701 a new fair on the second Wednesday of January was authorized by Parliament on the petition of the burgh (Henderson 1879, 366-7 & 371). In 1753 the St Margaret's Fair was changed by the town council to the last Wednesday in June (ibid, 464). By the end of the 18th century eight fairs were held in the burgh (OSA, 273).

Market day on Saturday was established or confirmed in 1515 by the burgh on the advice and command of James Hepburn, 'postulate of Dunfermline', when all men within the freedom of the burgh were required to bring their wheat, bere, malt, meal, oats and other merchandise to the market cross (Beveridge 1917, 192). This injunction seems not to have been obeyed and was renewed in 1534, when the burgh's common weal was 'gretumly hurt' for want of a Saturday market (Webster & Duncan 1953, 116). By 1726 the market days were Wednesday and Friday, although by the end of the 18th century the latter had fallen into disuse (Henderson 1879, 415; OSA, 273). Fish markets were ordered in 1494 to be held on Wednesday, Friday and Saturday, and this was confirmed in 1521, although enforcement seems to have been difficult as the cadgers (fish sellers) were fined for breaking the act and statutes of the town in 1512 (Beveridge 1917, 55, 184 & 208).

FOOD PRODUCTION

As the burgh was unable to sustain itself by trade alone, the burgh was granted land on which the inhabitants could grow their own crops (the town crofts) and pasture livestock (the common muir). The latter was granted or added to by Abbot Robert de Crail in the early 14th century (Henderson 1879, 121–2).

The two excavations that have taken place at Abbot House and New Row have revealed some material evidence of food production in the medieval burgh. At Abbot House (10), though metalworking was taking place in all four rooms on the ground floor, the presence of butchers' chips, small chopped bone slivers from butchery with cleavers, along with slag, indicates that the ground floor was used as a domestic kitchen as well as a workshop. (The living accommodation would have been upstairs.) The evidence from the excavated assemblage of medieval animal bone confirms that the pattern of animal exploitation was similar to that found in other east coast burghs. Cattle were predominant over sheep, and other animals were of little importance. The dominance of cattle was despite the abbey's participation in Scotland's wool export trade: the abbey was exporting 15 sacks of wool annually in the early 14th century, having an estimated 3000–3750 sheep (Duncan 1975, 429–30). Animal husbandry was sufficient to allow livestock to survive to adulthood. It is likely that cattle and sheep were reared primarily for hides, wool and

woolfells, with their meat being a by-product. Horse, pig and deer were also consumed. A knifecut on a bone from a dog may have been the result of skinning for its pelt, rather than its meat. (Dog skins were being exported from Scotland to France in the 17th century.) The finding of a whale bone fragment from the earliest Maygate surface (probably an offcut from bone working) indicates that parts of whale carcasses were brought to Dunfermline as well as the blubber for lighting the abbey (above). Oyster and other edible shellfish, fish and game birds supplemented the meat diet. Little evidence was found that the Agricultural Revolution of the 18th century had any effect on animal husbandry in the hinterland of Dunfermline before the 19th century.

In New Row (11), evidence of ploughing was found in the form of north/south furrows pre-dating the laying out of burghal plots. Unfortunately, it was not possible to determine if the ploughing took place before the construction of the abbey precinct wall. The furrows were sealed beneath a garden soil, up to 0.4 m thick, in which were the remains of two possible property boundaries: a shallow ditch, 0.70 m wide and 0.25 m deep, and a line of boulders, which may have been cleared stones deposited against a bank or hedge. Pottery evidence suggests that the site could have been occupied as early as the 13th century. The almost complete absence of animal bone implies that domestic midden material was carted elsewhere, probably to arable land for manuring purposes outwith the burgh.

INDUSTRY

The established trades dominated the economic life of the burgh. Documents of the 15th and 16th centuries record the presence of soutars, cordiners, brewsters, litsters (dvers), barkers (tanners), fleshers, maltmen, skinners, baxters (bakers), websters (weavers), tailors, cadgers (fish sellers), colliers, coopers, smiths and masons (Beveridge 1917; Torrie 1986). A lorimer and causeymaker are also recorded, and in 1539-41 a lorimer in Dunfermline provided locks for Falkland Palace (Paton 1957, 284). In addition to the burgh trades, the abbey had its own craftsmen: plumber, glazier, forester, slater, barber, miller, smith, wright and mason (Henderson 1879, 208). The abbey also had a baxter (Beveridge 1917, 137, 191 & 195).

The important burgh crafts were incorporated as trades under a deacon and assisted in the burgh government: a head deacon and four deacons are listed in 1526, although not their crafts (ibid, 218). A petition in 1706 by the burgh against the Act of Union listed the following trades: tailors, smiths, baxters, weavers, wrights, masons, shoe-makers and fleshers, of whom the weavers were the most numerous (Henderson 1879, 378-80); these trades formed the burgh's Incorporated Trades (OSA, 272 n).

There was a mill at Dunfermline before 1127, when David I granted a teind of its revenues to the abbey. Its location is unknown but by the 16th century the burgh had three mills, one at the north end of Collier Row (C), and two below the abbey, known as the Heugh Mills (DD; illus 8). These mills were powered by water supplied from the Abbey Mill Dam (A). In 1733 a wheat mill beside the Heugh Mills was built by the bakers of the burgh and a new flour mill was erected there in 1784-5 (Henderson 1879, 428 & 514). The Collier Row mill was removed in 1825 to make way for a spinning mill (ibid, 619) and the Heugh Mills were in ruins by 1856. In addition to the corn mills, there were two 'steel mills' belonging to the weavers in 1745 at the Collier Row mill, and another 'steel mill' was proposed elsewhere for grinding malt in 1756 (ibid, 443 & 468-9). The Lady Mill or Iron Mill (GG), on the west side of the Tower Burn, seems to have been part of the barony of Pittencrieff and had a tannery in its yard in 1803 (Seisins, no 6503).

Mention has already been made of the metalworking activity that took place in Abbot House and of the earlier workshops during the construction of the abbey (10). Excavation also uncovered a corn-drying kiln near New Row (11). The kiln was constructed of clay-bonded stones and consisted of a circular bowl, 1.6 m diameter, and a flue, the latter with a flagstone floor. Unfortunately no definite dating evidence for it was found, and it cannot be dated any more certainly than between the 15th and 19th centuries. Carbonized seeds of barley and oats, as well as of cultivation weeds, were recovered from the kiln. Burnt heather leaves found in the kiln suggest that this may have been used as fuel. No trace of roofing material was found. The kiln was used for domestic rather than industrial purposes, for drying grain prior to storage or processing into meal as well as for malting.

Also found in the New Row excavations was a post-medieval structure possibly used as a loom stance for weaving. This building was still standing in 1896, and was representative of an industry which flourished in the burgh in the 18th and 19th centuries (see above). Linen weaving can be dated from at least the late 15th century in Dunfermline, with a reference in 1486 to land in Netherton where a peck of lint could be sown (Beveridge 1917, 305).

The coal industry gave its name to one of Dunfermline's streets, Collier Row (now Bruce Street), which presumably housed a community of miners. The burgh worked its own coal at Townhill (Henderson 1879, 642). Coal mining in Dunfermline is first recorded in 1291, when the Laird of Pittencrieff granted the monks of the abbey the right to dig for coal on his land for their own use only (Reg Dunf, 218–19). Medieval coal-working was carried out by quarrying into the surface rather than by mining underground. It is possible that the quarry on Tower Hill (9) may have been a coal quarry as coal chips were found, particularly on the west side of the ruins. During the operations to stabilize the north cliff-face, coal seams were seen and a cave discovered which may have been an old coal mine (Dunf J, 11 Aug 1906). A former coal pit was found in 1771 (Henderson 1879, 492); and an air shaft, discovered in 1928 during the foundation work for the Louise Carnegie Gates at the entrance to Pittencrieff Park off Bridge Street, may have been a ventilation shaft for a former mine (Dunf J, 8 Sept 1928).

Collier Row seems to have been a site for the burgh's tanning industry, presumably attracted by the ready source of water from the mill dam and the ability to dispose of waste in the Tower Burn. In 1479 there was a bark pit in the backlands and in 1520 there was a bark house, and another was to be built from material quarried from its yard (Beveridge 1917, 21 & 205).

A local pottery industry has been suggested from the finding at Abbot House (10) of sherds of a gritty stoneware fabric. A family of the name of Pottar occurs in the burgh in the late 15th and early 16th centuries and may have taken its name from this industry (ibid). References to unlocated 'lyme pottis' in 1501 belonging to Sir Andro Pacok, chaplain, and to a 'lyme pot' in 1501 transferred from William Masterton to Robert Blacot may refer to clay pits quarried for the pottery industry (ibid, 117, 340 & 346). (The Scots phrase 'laime pottis' can mean earthenware pots rather than lime pit.)

MARKET AREA

Unlike other burghs, Dunfermline's market was not held in a specially widened area of a street. Instead the market was held in High Street, which was paved for the purpose between the market's essential elements — the market $\cos(M)$ at the east end, and the tolbooth (K) and tron (L) at the west end. The cross, first recorded in 1438 (Torrie 1986, 156), stood in High Street at the junction with Cross Wynd, but was removed on the opening of Guildhall Street in 1752. The cross-shaft was built into an adjacent corner before being re-erected in 1868 at the Guildhall (Henderson 1879, 461 & 738). It has been relocated in its original position as part of the recent pedestrianization of High Street.

The tolbooth, first recorded in 1433 (Torrie 1986), was the seat of the burgh's court as well as being the collection point for market dues and the town gaol. It was located at the west end of High Street. The building was of three storeys, the topmost of timber and used as a debtors' prison. The first floor housed the council meeting rooms, with vaults and a prison underneath. The upper floor was reached by a fan-shaped flight of steps, under which was a passage connecting Collier Row and Kirkgate and through which a cart could pass. It is not clear if the 15th-century tolbooth survived the fire of 1624. The building was removed in 1769 when Bridge Street was constructed as a new approach from the west. Its replacement, completed in 1771 except for the steeple, was situated at the corner of Bridge Street and Kirkgate until 1876, on the site now occupied by the present town house opened in 1879 (Henderson 1879, 487-8, 493 & 702). No remains of the former tolbooth were found during the monitoring of a pipe trench in Bridge Street, although crushed building debris was observed (21), perhaps from the demolition used to level the new road. A former building frontage, possibly of the tolbooth demolished in 1876, was seen in the pipe trench at the top of Kirkgate (21).

The tron or public weigh-beam was situated by the tolbooth. In 1383 or 1404 the tron and customs of Dunfermline were arrested by Robert II or III, but restored soon after (Henderson 1879, 141; Webster & Duncan 1953, 24). In 1765 the tron was relocated to beside the newly built Tron Well, which was situated just inside Collier Row, and in 1845 to High Street (Henderson 1879, 483 & 654).

Initially there is no evidence of specialized markets: in 1515 the council ordered that all produce and merchandise be brought to the market cross (Beveridge 1917, 192). The fish market was also at the market cross in 1494 and 1521 (ibid, 55 & 208), although by 1765 it was held at the tron, where there was a stance for it (Henderson 1879, 483). In or by the 18th century other specialized markets were held or established. In 1714-15 a meal and flesh market was erected, although in 1740 the meal market was transferred to the basement of the tolbooth (ibid, 392-3 & 436). In 1714 the butter and cheese market was at the tron, where it continued until 1832 (ibid, 393). A yarn market on Friday was established at the tron in 1753 (ibid, 463-4). A new flesh market was established in a yard on the north side of High Street to the west of the market cross in 1787, while a slaughter house was built near Knabbie Street (now Carnegie Street). This market was not a success and was closed in 1819 (ibid, 460, 515, 516 & 599). A corn market on Tuesday was established at the cross in 1813 (ibid, 581). In 1745 there were stands for the 'landwart fleshers' (from the burgh's hinterland) near the tolbooth (ibid, 446).

PORTS AND DEFENCES

The nature of the early burgh defences are unknown. The burgh had no purpose-built town wall, relying for protection on head dykes at the end of each burgess property to keep out attackers, animals, robbers or plague carriers, and the burgesses were generally required to perform ward and watch. The burgesses of Inverness were required to maintain a defensive ditch, which had been dug around that burgh by William the Lion, and to provide a palisade upon it (Barrow 1971, 262); but as Edward I had ordered the burgesses of Dunfermline to dig a ditch around the town in 1303, presumably there had been no such defensive earthwork there before this time. About 1444 the council ordered the 'dikyn of the toun' at a time of pestilence (Torrie 1986, 163): this was probably a hastily dug ditch rather than a wall, and suggests that Edward I's ditch had not been maintained. The courses of these ditches are presently unknown.

The routes into the burgh were guarded by ports or gates which could be closed at night or in time of danger or pestilence: in 1499 the East Vennel (unlocated) was closed (Beveridge 1917.

97). The ports also served as collection points for payment of tolls on produce or manufactures coming into the burgh for sale at markets or fairs. The burgh had five ports. The Mill or Collier Row Port (B) stood by the mill at the north end of that street. The port was first recorded in 1478, and its gate was re-hung in 1507-8; its removal was ordered in 1754 (Henderson 1879, 165 & 466; Beveridge 1917, 157). The Rotten Row Port (E) stood near the top of Randolph Street in 1735 but no other information is known about it (Henderson 1879, 430). The Cross Wynd Port (H) stood at the north end of that street. It was a 'new port' in 1499, but its gate was re-hung in 1507-8 (Beveridge 1917, 97 & 157). Its repair was ordered in 1702 and its removal in 1752 (Henderson 1879, 373 & 462). The East Port (V) stood at the top of New Row; it was mentioned in 1488 and a new lock and key provided in 1507-8; it was ruinous in 1702, repaired in 1705, rebuilt in 1718 and its removal ordered in 1752 (ibid, 168, 376, 373, 398 & 462). The West Port (Z) in St Catherine's Wynd was the first recorded port of the burgh, being mentioned in 1327 (Reg Dunf, 253–4). Above it was a room known as the Cross Chamber, entered from a doorway facing the churchyard. The port was removed in 1780, after being ruinous from at least 1765 (Henderson 1879, 484 & 507-9). The location of these ports implies that New Row and Netherton would have lain outside the enclosed area of the burgh; perhaps the Lyne and Tower Burns were considered sufficient to defend them. In addition to these ports there was the Tolbooth Port, mentioned in 1745, a gate at the north end of the passage under the tolbooth steps (ibid, 446).

No definite trace of the West Port was found in recent archaeological work (21, 24) in St Catherine's Wynd, although an earlier wall frontage was located on the west side, and the former precinct and churchyard wall on the east. No trace of the East Port was observed in a trench at the east end of High Street (20) and it is uncertain whether anything remains, beneath today's streets, of any of the other ports.

LANDS OUTWITH THE TOWN

PERDIEU'S MOUNT

This large earthen mound, c 4.57 m high, lies on the west side of the Tower Burn to the south of the burgh (II). It is identified by the RCAHMS as a motte hill, but nothing is known about the earthwork (RCAHMS 1933, 127). Pardusin was granted by Malcolm III and Queen Margaret to the church of Dunfermline before 1093 (Lawrie 1905, no LXXIV) and the lands of Pardew or Broomhill were feued by the abbey in 1526 to James Murray (Reg Dunf, 381). There was probably no house here at the latter date as, in 1570, Murray's successor, also James Murray, bought the 'Great Ludging' (Abbot House) in Maygate.

PITTENCRIEFF

The estate of Pittencrieff was not part of the burgh of Dunfermline until 1911 (Webster & Duncan 1953, 157-8). The place-name means 'share of the tree' (Nicolaisen 1976, 152) and indicates a pre-12th-century settlement in the area, presumably dependent on the royal shire centre at Dunfermline. The site of the original royal burgh of Dunfermline (J) probably lies somewhere to the north or west of Tower Hill and was presumably granted by the king to the owner of Pittencrieff. The first known owner, William de Obervill in 1291, granted the monks of Dunfermline the right to work coal for their own use anywhere on his estate except on arable land (Reg Dunf, 218-19). John de Obervill in 1231 may have been a previous owner but had no

territorial designation (ibid, 99, 108, 111 & 112). By 1466 the lands of Pittencrieff were in the possession of Sir Thomas Wemyss of Reres and they remained with that family, being erected into a barony in 1538, until acquired by Lord Bruce in 1605 (RMS, ii, no 881; iii, no 1838; vi, no 1684). In 1633 Alexander Clerk of Stenton, Provost of Edinburgh, acquired the estate (ibid, viii, no 2141) and apparently built the present Pittencrieff House (X), as his arms and initials appear on window heads and an armorial panel. However, the house is supposed to have been built in 1610, while a third storey was added to the house in 1731 (RCAHMS 1933, 122). The house is now a museum and art gallery.

Tower Hill became part of the estate in 1749, when acquired by Colonel Forbes of Pittencrieff from the Marquess of Tweeddale. The burgh at that time had a lease of the hill, and the inhabitants were using the Tower Burn on the north side of the hill for washing and bleaching cloth and yarn (Henderson 1879, 455 & 492). The estate was bought by Andrew Carnegie early in the 20th century and gifted to Dunfermline. The gardens are protected as a Designed Landscape.

CONCLUSIONS

Fieldwork in the former burgh has revealed good preservation of archaeological remains in the southern part of the town. Here, sloping ground has allowed a build-up of deposits. The only investigation on the north side of High Street (13) found that archaeological deposits have been destroyed or severely truncated by later terracing into the slope, although more work needs to be done on this side to determine the extent of archaeological survival here.

The abbey precinct in particular seems to contain the greatest depths of deposit. The undercrofts of the south-west range of the palace and south cloister were preserved under the fallen debris of the decayed and abandoned buildings. At the southern end of the precinct, between Buchanan Street and Priory Lane, survival of archaeological remains is good, preserved beneath more than 0.7 m of garden soils and modern deposits, although the frontage along Priory Lane seems to have been scarped in modern times. Foundations of the inside façade of the southwest range of the palace have been found 1.7 m below the surface (7); although that excavation was in advance of the lowering of the street level in the Pends to its original level, as a result of which the preserved remains are likely to be at a shallower depth now. Remains of the north-west range of the palace may survive under the surface of St Catherine's Wynd, as may the foundations of the Queen's House (Y) and Constabulary House (AA). Foundations of the former west wall of the churchyard/abbey precinct (24) and of the former west frontage along St Catherine's Wynd (21) were found beneath the roadway, as well as a former cobbled road, showing that the road surface has been raised by up to 0.9 m, thus preserving structural remains and areas of midden in places. Similarly, the road surface of Maygate has been raised over the centuries by c 0.5 m. The entry to Abbot House is now stepped down from the modern pavement, and part of the original road surface, of successive layers of compacted sandstone fragments, was excavated inside the house, together with a midden which pre-dated the laying out of the road in the 13th or 14th century (10). Preserved under the present street surfaces are areas of midden (20, 21) and remains of the burgh's sophisticated, medieval and post-medieval box-drain system (16, 17, 20–22, 24, 25) for carrying water to the abbey and mills and for carrying away domestic refuse from the burgh. The present road surface of New Row appears, however, to be set directly on the natural subsoil (11). The discovery of a kiln some 2 m below the ground surface of High Street/New Row (18) strongly suggests that archaeological remains may survive even on the frontage or under the pavement of the street.

Excavations inside Abbot House (10) have shown that archaeological deposits survive underneath later floor levels to a depth of over 0.5 m; survival may be just as good elsewhere in Maygate. Landscaping in the garden of the house has reduced the surface to that of the abbey graveyard, but archaeological remains, including burials of the cemetery, are still preserved. Similar burials may be expected under the gardens of Maygate properties to the west, which have also been created out of the former abbey precinct. The excavations in New Row (11) revealed that the frontage had been destroyed by modern development, although in the backlands, extending into the abbey precinct, archaeological deposits, up to 0.6 m deep, were overlain by up to 1.65 m of modern overburden.

Monitoring of development to the rear of Bruce Street (19) suggests some archaeological survival in the backlands. Rubbish from the buildings on the frontage of the former Collier Row, as well as Kirkgate and St Catherine's Wynd, may have accumulated on the sloping ground of the glen through which the Tower Burn flows. The survival of low-lying medieval foundations at St Catherine's Wynd (Q) suggests that archaeological remains may be preserved along the western edge of the burgh due to the sloping ground, as in the abbey and palace undercrofts. Evidence of the bark pits used in the tanning industry in the backlands of Collier Row (above) may also survive. Monitoring outside the palace (26) has revealed that midden material survives there, despite tree planting and landscaping.

The archaeological and architectural investigation of Abbot House during its recent restoration revealed the structural development of this important late medieval town house. The traditional interpretation of this structure — that it was the work of Robert Pitcairn after 1560 — was shown to be false: in fact the building originated about a century earlier than previously thought. The renovation of the building at 32 Maygate (T) revealed that it, also, had a concealed architectural history, in this case a former arcaded front. Further important discoveries may be made in the future during any renovation/restoration of buildings in Dunfermline.

FURTHER WORK

A geophysical survey might identify the site of the original royal burgh in Pittencrieff Park (J). While the east and west ranges of the cloisters cannot be excavated because they lie within the graveyard, the sites of the north-west range of the palace and of the Queen's House (Y) and Constabulary and Regality House (AA) might reward investigation. The graveyard and a possible wall of St Leonard's Hospital have been found in excavation (6); remains of St Mary's Chapel (HH) may also survive in the suburb of Netherton, although it now seems unlikely that traces of St Ninian's Chapel (F) survive in the former Rotten Row.

A new programme of research into the history of the burgh is required. Most recent accounts of the burgh (including this one) have relied on the earlier work of 19th-century historians, particularly Chalmers and Henderson. The 20th century saw the publication of the earlier burgh records (Beveridge 1917; Webster & Duncan 1953; Torrie 1986). Closer scrutiny of these and of unpublished local records, particularly protocol and sasine books, as well as of national records, may well shed light on continuing problems. The origins, function and date of Malcolm Canmore's Tower (P) need to be resolved, if at all possible. The locations, origins and closure of the chapels, St Leonard's Hospital and the almshouse outside the East Port (W) need to be clarified. The water system of the burgh and abbey, which survives in places under the present streets, certainly merits more research. Did it flow down Maygate or through the abbey precinct to the monastic buildings and Heugh Mills (DD)? Does Watergate refer to Maygate, or was it a gateway into the precinct? What and where were the industries it served? Is the 'Back

Burn' the same as Tower Burn? Sasines and protocol books may also identify more closely the locations of centres of craft or industry, including tanneries, kilns, bakehouses, 'lyme pots' and smithies.

Archaeological investigations in Dunfermline have shed light on the economy, society, trade, industry and development of the medieval and post-medieval burgh, as well as on its important monuments, the abbey, palace and Tower Hill. They have also confirmed that important archaeological remains survive beneath parts at least of the present-day town, particularly in the southern area. It is important, therefore, that every opportunity is taken to carry out archaeological investigation, whether by excavation or building survey, in advance of any redevelopment within the historic core of Dunfermline.

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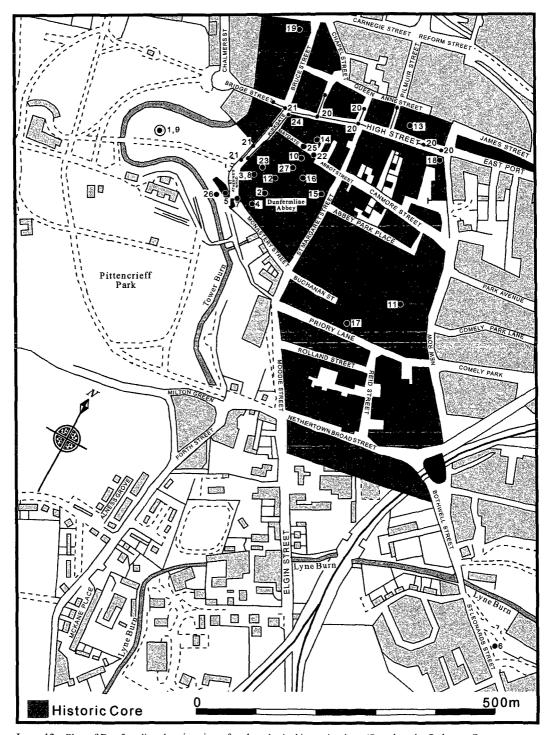
APPENDIX 1

GAZETTEER OF ARCHAEOLOGICAL INVESTIGATIONS

The following information is current to May 1998

EXCAVATIONS

- 1 Malcolm Canmore's Tower (NT 0877 8731). Excavations in 1843 by the landowner, James Hunt of Pittencrieff, uncovered a die for striking coins and some charcoal. The coin die, either a 19th-century forgery or dating to the reign of David II (1329-71), is now in the Royal Museum of Scotland (Scott 1857; Chalmers 1859, 120; Henderson 1879, 651; Laing 1969, pl 3).
- 2 Dunfermline Abbey (NT 089 873). In 1855 'numerous diggings' on behalf of Ebenezer Henderson, a local historian, 'within the area of the Monastery' revealed underground foundations. These appear to have been the east and north walls of the frater, the vault of the dormitory undercroft, and the entrance to a passage in the west wall of the frater from the stair tower at the north-west corner of the frater (Chalmers 1859, 132-4; Henderson 1879, 671).
- 3 Dunfermline Abbey (NT 0894 8730). Excavations in 1916–17 by the Office of Works beneath the floor of the abbey nave revealed the foundations of an earlier, four-cell church, consisting of a chancel with western tower/nave, to which was added a later chancel and apse. The outlines of the earlier building are displayed in the nave floor (Robertson et al 1981, 389; Fawcett 1990, 4).
- 4 Dunfermline Abbey Cloisters (NT 0894 8725). In 1920–4 the undercrofts of the Frater Hall and part of the dormitory were cleared of rubble during excavation (Fawcett 1990, 20-1).



ILLUS 12 Plan of Dunfermline showing sites of archaeological investigations (Based on the Ordnance Survey map © Crown copyright)

- 5 The Palace (NT 0888 8727). The undercroft of the south-west range of the palace was cleared of rubble.
- 6 St Leonard's School (NT 098 867). Excavations in the playground of the former St Leonard's School by the Department of the Environment (DOE) in 1974 revealed the remains of a much-disturbed cemetery adjoining the site of the medieval hospice of St Leonard. The remains of some 40 individuals were recovered along with some late medieval pottery, associated with a short length of wall foundation of uncertain purpose (Robertson 1974, 83).
- 7 The Pends/Monastery Street (NT 0892 8725). Excavation by the DoE in advance of landscaping in 1975 within the area of The Pends and Monastery Street exposed the foundations of the gatehouse, frater and palace block of the abbey with their respective old ground surfaces. The late 14th-century gatehouse was found to have replaced an earlier structure contemporary with the frater. A quantity of medieval pottery was recovered (Robertson & Williams 1981).
- 8 Dunfermline Abbey (NT 0897 8730). Subsidence, that had occurred in paving at the east end of the south aisle of the nave, was investigated by the DoE in 1977. The collapse of iron mort-safes over wood-veneered lead coffins of the 19th century was seen to be causing considerable earth movement. The disturbed remains of an earlier wall on the line of the columns of the south arcade was revealed, which may have been part of Queen Margaret's church. Natural clay lay at a depth of 1.2 m (Haggarty & Reynolds 1981).
- 9 Malcolm Canmore's Tower (NT 0877 8731). Excavations by SUAT in 1988 around the ruins of this monument indicated that they probably date from the 14th century. The site had been quarried, possibly before the construction of the tower, and was extensively disturbed in the 19th and 20th centuries (Perry 1989).
- 10 Abbot House (NT 0902 8737). Excavations in the garden of Abbot House by SUAT in 1988 revealed disturbed human bones, as well as evidence of metalworking. Further excavations and watching briefs by SUAT, during the restoration of Abbot House between 1992 and 1994, revealed well preserved deep deposits of archaeological material under the house and in its garden. The house, dating from the late 15th century, was found to incorporate foundations of the abbey precinct wall, abutted by the earlier road surface of Maygate. Under this road were found a flagstone path, wall and drain, which were constructed on top of midden deposits. The garden, with cultivation furrows and culverts, had been laid out over part of the abbey graveyard, which in turn overlay a sequence of possible workshops, perhaps destroyed in Edward I of England's sacking of the abbey precincts in 1304 (Coleman 1996a).
- 11 New Row (NT 093 872). Trial excavations in the grounds of the former Lauder Technical College by SUAT in 1993 located the abbey's east precinct wall c 0.50 m below modern ground level, and associated garden soils. Further excavation by Scotia Archaeology revealed more of the precinct wall, dated to the 14th century, as well as an earlier boundary ditch. Within the abbey precinct, medieval remains comprised the corner of a clay-bonded stone building and a pit of unknown purpose; only drains were evident in the postmedieval period. Outside the precinct were cultivation furrows parallel to the wall, a boundary ditch at right angles to it and a corn-drying kiln. An early 19th-century loom stance was also found (Lewis 1995).

TRIAL EXCAVATIONS

12 **Dunfermline Abbey** (c NT 090 873). In 1807 Sir John Dalyell carried out an excavation of the supposed site of the royal tombs within the Psalter Churchyard (in the former abbey choir). At a depth of 4 or 5 ft below the ground surface was found a grave, lined and covered with small irregular pieces of lime-bonded sandstone. Within the grave was an adult skeleton. Disturbed human bones and 'square, flat red bricks' (floor tiles) were found in the course of the excavation. Later a lead plate, inscribed ROBERTUS DEI GRATIA REX SCOTORUM was said to have been found in the discarded spoil (Henderson 1879, 559–61).

- 13 **98 High Street** (NT 0918 8748). Trial excavations within the former City Bakery by the Urban Archaeology Unit in 1981 located slight traces of medieval backland activity. Most of the site's archaeology had been destroyed by early modern terracing into the hill slope (Hall & McGavin 1982, 10).
- 14 Wilson's Close, 34 Maygate (NT 0905 8740). Trial excavations by SUAT in 1988 located 2 m of hillwash deposits, with wall foundations and medieval pottery (Bowler 1989, 15).
- 15 Central Library, Abbot Street (NT 0907 8731). Trial excavation in the car park to the rear of the library by SUAT in 1990 located stone-lined culverts associated with 16th-century pottery (Cachart 1990, 13).
- 16 **Abbot Street** (NT 0907 8732). Trial excavations by SUAT in 1992 in the south-west corner of the car park behind Abbot House located wall foundations c 0.45 m below modern ground level and a midden of unknown date (Moloney 1992b).
- 17 **Buchanan Street/Priory Lanc** (NT 0912 8714). Six trial trenches in the northern part of the site were excavated by SUAT in 1996 and 1997. They revealed an east/west aligned, stone-built water channel, possibly a water supply to gardens, orchards, workshops or outbuildings within the abbey precinct. Wall foundations, roughly metalled surfaces and a rubble-filled feature or terrace were also found and medieval pottery was recovered. One trench in the southern part of the site revealed that this part had been scarped for previous building operations (Coleman & Stronach 1997).

WATCHING BRIEFS

- 18 **High Street/New Row** (NT 093 875). Observations by Dunfermline Museum of a development on the corner of High Street and New Row located the remains of a kiln, 1 m high and 2 m wide. The top of this feature lay c 2 m below road level (Gourlay & Turner 1978, 11).
- 19 37-39 Bruce Street (NT 089 876). Observations of a new extension to the old Drill Hall in Bruce Street in 1978 recovered a mixture of finds of post-medieval date and a single sherd of medieval pottery (Gourlay & Turner 1978, 11).
- 20 High Street (NT 0898 8744 NT 0927 8747). Monitoring by SUAT in 1991, during renewal of water services in High Street, Randolph Street, Douglas Street and Cross Wynd associated with the pedestrianization of the town centre, located a sandstone culvert near the west end of High Street that may have originated at the Abbey Mill Dam (A). Two other trenches contained isolated loam deposits (one containing bones, shell and leather). In all the trenches observed, natural clay was located very close to modern ground level (Williams 1991).

Further monitoring by SUAT in 1992, during renewal of water services and insertion of tree pits at the junction of High Street and Randolph Street, located a midden deposit extending across High Street and an east/west aligned stone culvert (Moloney 1992a). A tree pit at the east end of High Street found natural clay at a depth of c 0.6 m (Cox 1992).

- 21 St Catherine's Wynd/Kirkgate/Bridge Street (NT 0892 8732 NT 0897 8745). Monitoring was undertaken by SUAT in 1993 of a new water pipe trench along the west side of St Catherine's Wynd and Kirkgate and the south side of Bridge Street. In St Catherine's Wynd the frontage wall of an old building, demolished in the early 20th century to widen the Wynd, a mortared stone culvert respecting the former frontage, and a mortared retaining wall containing reused stones were uncovered (Mackenzie 1995). Metalled surfaces close to the Maygate/Kirkgate junction were also located. As the trenches progressed further north archaeological deposits became less well preserved (Hall et al 1994, 17).
- 22 Maygate/Wilson's Close (NT 0906 8738). Monitoring by SUAT in 1993 of a new water pipe trench at the junction of Maygate and Wilson's Close revealed an east/west aligned mortared stone culvert with associated sherds of china. Modern deposits to a depth of 1.15 m were encountered in the trench (Mackenzie 1995).
- 23 Dunfermline Abbey (NT 089 872). A watching brief was undertaken by Scotia Archaeology in 1993 of trenches dug for new lighting around the abbey. To the north of the church several recumbent post-Reformation grave slabs were uncovered as well as two possible walls and a paved area comprising firereddened sandstone flags. Trenching on the south side of the church, along Monastery Street and just inside Pittencrieff Park revealed recently disturbed ground and nothing of archaeological interest (Barlow 1993, 27).
- 24 St Catherine's Wynd/Kirkgate (NT 0894 8734 NT 0897 8744). A watching brief was undertaken by SUAT in 1994 on a new gas pipe trench along the east side of St Catherine's Wynd and Kirkgate. In the Wynd were revealed fragments of the west precinct wall of the abbey, a stone culvert on east/west alignment and a clay-bonded wall foundation parallel to the culvert (Hall & Webber 1994, 17; Mackenzie 1995).
- 25 Maygate (NT 0904 8738). Observations by SUAT in 1994 of a new electricity cable trench outside Abbot House found the continuations of a wall and stone drain located during the Abbot House excavation (10). Also found was the continuation of the stone culvert found at the junction of Maygate and Wilson's Close (22). The top of archaeological deposits were located at 0.7 m in the rest of the trench (Hall 1994, 17; Mackenzie 1995).
- 26 The Palace (NT 089 872). A watching brief by Scotia Archaeology in 1994 on new drainage trenches outside the south wall of the south range of the palace revealed that the depth of deposits below topsoil increased towards the west, where possible midden deposits were encountered (Murdoch 1994, 17).
- Abbey Graveyard (NT 0901 8736). A watching brief by SUAT in 1996, on the cutting of a new path across the abbey graveyard to provide access to Abbot House, revealed a buried gravestone, probably from the 19th century at a depth of 0.15 m. Disarticulated human bones and Victorian pottery were found (the bones were reburied) (Coleman 1996b).

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