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Tårnby – a farm of the period 1100-1800
An analysis of the medieval farm

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INTRODUCTION

The development of both the structure of the medieval village and that of the plan of the farm in Denmark are practically unknown. Studies of the village in the High and Late Middle Ages have not been a high priority. This is partly because research effort has been directed by preference towards the new types of site appearing in the Middle Ages – market towns, castles, churches and monasteries – and partly because of the unfavourable conditions for the survival of relevant evidence from this period. At the beginning of the High Middle Ages buildings whose constructional elements rested on the ground were introduced in place of the older building practices using earth-fast posts. There was, however, no comprehensive replacement of the older building style, and the use of earth-fast posts continues to a certain extent right through the Middle Ages. Sites at which the new way of building was used are archaeologically intractable. Where the farms were moved out into the fields after the agricultural reforms of the eighteenth century, the medieval village site was exposed to cultivation, resulting in the plough erosion of building remains and severe damage to the sites. Thick culture layers remain well preserved beneath those villages which retained the old village structure, but excavations here are financially as demanding as in towns, which unfortunately often limits the scope of investigation.

In 1993 and 1994, in advance of the construction of the motorway spur to the Fixed Link to Sweden, the Copenhagen County Museum Council undertook comprehensive work in the middle of the medieval village of Tårnby on the island of Amager.[1] This is the first major study of a farm of the High and Late Middle Ages since Steensberg's extensive investigations of the 1940's and 50's. Concurrently it has been possible, for the first time in Denmark, to trace a complete farm unit from its foundation in the earlier Middle Ages to its abandonment in favour of another building pattern in the mid-nineteenth century, thanks to a lucky combination of the size of the excavated area and the good state of preservation of the cultural deposits. Best preserved is the medieval farm plot, which has probably been uncovered to its full extent. In this article, selected results of the excavation will be presented, with particular emphasis on a discussion of the farm unit at Tårnby and special attention to the Middle Ages.

TÅRNBY VILLAGE IN THE MIDDLE AGES

Topography

The village of Tårnby now lies in the middle of the island of Amager. The present extent of the island

1 The excavation known as 'Tårnby Torv' has J.nr. SØL 457. The excavations were finaced by Øresundsforbindelsen A/S. The site director was district archaeologist Dr. D. L. D. Mahler. The supervisors in 1993 were mag. art. P. S. Schiellerup and stud. mag. M. S. Kristiansen; in 1994 cand. phil. T. Roland and M. S. Kristiansen. Field assistants in 1994 were stud. mag. H. Rensbro, stud. mag. U. Johansen and cand. mag. L. Trabjerg. The excavation team was one of 8-9 in 1993 and up to 18 in 1994.

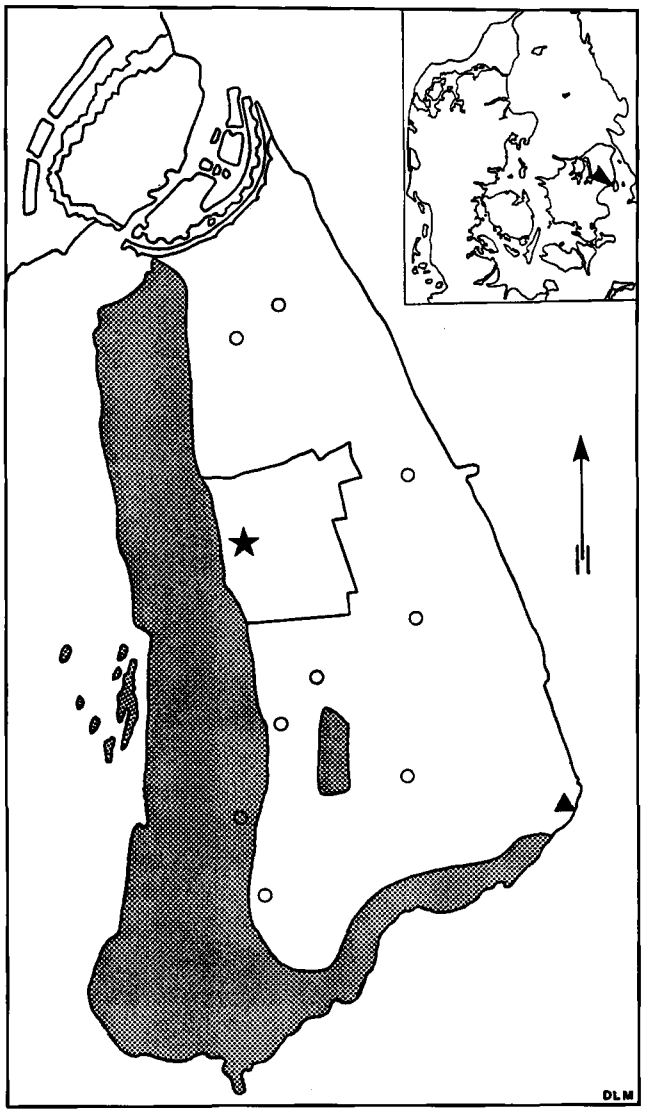

Fig. 1 Map of Amager in the eighteenth century. Tårnby village (star) lies on the boundary between the moraine and the coastal meadow (stippled). To the north lies Copenhagen and to the south Dragør (triangle). Other villages and settlements are marked with circles (after Kristiansen *et al.* 1994).

is, however, very much the product of a major dyke programme undertaken during the Second World War on the western side of the island, which created Amager Common in its present form. In the Middle Ages, Tårnby, located on the moraine area immediately adjacent to the old shore line of the Littorina Sea, would have lain in a quite differently attractive and central position for the exploitation of various resources, with the extensive, low-lying common and coastal meadow areas to the west and the fertile morainic zone to the east some 3-5 m above sea level (Fig. 1). Before the modern dyking, the sea shore lay about 1.5 km west of Tårnby. The character of the coastal zone presumably varied with the seasonal water level.[2]

This coastal position was probably not without its problems. Storms would have driven water from the Baltic up through the Øresund and the shallow Kalveboderne (the channel between Zeeland and Amager), possibly causing flooding. In what would then have been the coastal zone, now within the enclosed area, one can still see the dykes which protected the lands behind them. The dating of these dykes needs to be determined by archaeological means. In addition to protecting the village itself, the dykes should also perhaps be regarded as a means of enclosing additional meadowland.

The village of Tårnby in the Viking Period and the Middle Ages

The suffix *-by* indicates a Viking-period origin for the village, and in the former medieval fields immediately east of the village, along the line of the motorway, traces of a Viking-period settlement of the ninth and tenth centuries were discovered. The character of this settlement is not known. It may have been no more than a single farmstead, or perhaps have consisted of dispersed farmsteads (Fonnesbech-Sandberg, in Kristiansen *et al.* 1994:29ff.). A copper-alloy pendant in the Borre Style was found in 1939 in the area north of the present Tårnby Torv, possibly indicating the site of a cemetery.

Tårnby village (Fig. 2) is first recorded in 1135, when King Erik Emune granted the church in Lund a landholding in *Thornby* (Weibull 1963: DD, I, 2, no.63). This must imply that the king held some of Tårnby if not the whole village. Whether Tårnby were in the possession of the Hvide family, or were

2 The area was trial trenched with a view to localizing coastal settlement and the old shoreline. No settlement traces were found. However the coastline was discovered over a distance of about 100 metres: trial excavation report SØL 412.

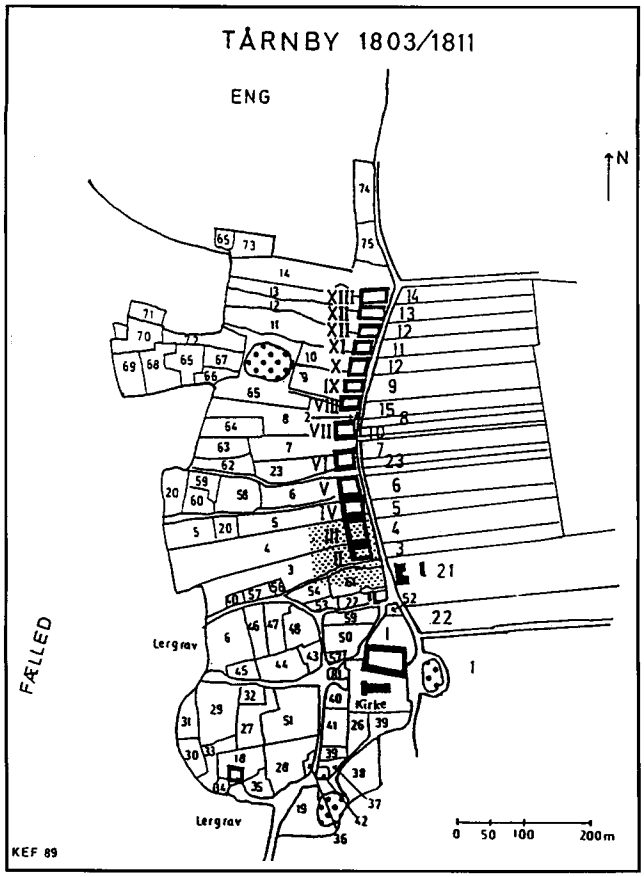

Fig. 2 Composite map from the survey of 1803 and an extract from the official survey map of 1811. The buildings are marked as on the 1803 map, and the farm numbers (corresponding to the survey numbers of the Land Survey of 1688) are marked with roman numerals. New survey numbers are marked with arabic numerals. East of the village can be seen the toft fields of the farms. The three original village ponds are dotted in. Excavation SØL 457 is stippled (after Kristiansen *et al.* 1994).

part of Valdemar the Great's comprehensive grant to bishop Absalon, is unknown, but we do know from repeated evidence in the papal confirmations of Absalon's own grant to the bishopric of Roskilde in 1186 and 1193, that Absalon owned both 'the manor of Borgby with its appurtenances' (Nielsen 1872: KD, I, no.1) and 'the church on Amager' (Nielsen 1872: KD, I, no.3). Neither the manor nor the church are directly associated with Tårnby in the sources, but both are unquestionably to be assigned to the village.

In the Land Book of the See of Roskilde, we find information that the village of Tårnby consisted of four land holdings – a piece of information which is reflected, indirectly, in the Land Survey of 1688. Unfortunately, Tårnby is referred to only in the unspecified lists of the Land Book, and the size of the individual farms is not given, nor the number of units (Christensen 1956:134, 154). In 1518 '12 farmers' are recorded, a figure which must represent the number of farms. In the 1688 census there is information about the number of farms and their size. At this date Tårnby again comprised twelve farms (cameral units), referred to as whole, three-quarter and half farms (Frandsen 1983:49ff.).

Use of resources

Tårnby lay centrally placed for a balanced and productive economy. The flat land between the coast and the morainic clay with its rich grazing was a precious resource to the farmers. There was also access to extensive shallow water areas offering rich scope for net fishing and trapping. The fish bone from the excavations reveals the great importance of coastal fishing (Enghoff, in Kristiansen *et al.* 1994:106ff.).

The medieval fields lay east of the village on the even morainic land surface. The agricultural area belonging to Tårnby village (Frandsen 1983:49ff.) was assessed in the Land Survey of 1688 as 314 *tønder* of land (1 *tønde* = 1363 acres), including 55 *tønder* belonging to the priest, so the cultivated land belonging to the village was not particularly large. The twelve farms enjoyed, however, particularly high yields per unit land. The morainic soil is of exceptionally good quality, and with access to grazing outside the fields it would have been possible to cultivate the fields using a permanently cultivated infield system (*alsædebrug*). In the Land Survey of 1688 cabbage gardens of striking size are noted. How far back in time such extensive garden cultivation might go we do not know. In more recent times the animal stock was of great importance to the village economy, as was undoubtedly the case in the Middle Ages.

Tårnby was ideally situated to trade agricultural produce, 5.5 km from Copenhagen and 6 km from Dragør. The former, as one of the most important harbours of Zeeland and later the meeting place of the national government, and the latter, as one of the poles of the Baltic herring markets, must have been exceptionally good markets.

THE FEATURES EXCAVATED

The excavations

The excavations revealed a wide variety of features in the subsoil as well as large quantities of settlement detritus in the culture layers. The strategy of excavation was governed by the standing buildings in the area which were only gradually vacated and demolished. The area of a total of 7,491 sq m was therefore divided into two main areas, of which the first 1,371 sq m were excavated in 1993 at the northern end of the site. Here, the northernmost part of the medieval farm site was revealed. The remaining 6,120 sq m were excavated in 1994, including the remainder of the farm site. The method of the trial excavation, in trenches with baulks, proved not to be ideal for the very complex sequences of layers encountered. In 1994 the method was therefore changed to one of areal excavation without systems of baulks, with the preliminary trial excavation revealing only the extent of the latest culture layers. In 1994 the investigation of building grounds from more recent times was also given a more significant place in the objectives of the excavation, while the medieval remains had been given priority in 1993.

The area where the buildings were concentrated was excavated stratigraphically. The culture layers consisted of, amongst other things, sequences of buildings 40 to 70 cm thick. Typical of the site to the west and south of this was a homogeneous layer of soil 1.5 m thick and the remains of more recent activities. After trial excavation and on the basis of the experience of 1993, these areas were excavated down to the subsoil in 1994. An extra network of trenches was laid out south of the building plots, and excavation down to the subsoil was not undertaken before the clearance of modern soil, as the map evidence of 1803 suggested the possibility of eighteenth-century remains on the ground here. With a few, fragmentary exceptions, these only survived in the subsoil.

Account of the features

In the subsoil about 1,280 features of various character were found (post-holes, trenches and pits). From the post-holes several stretches of fencing and two (perhaps four?) post-built buildings can be identified. These buildings are probably to be dated to the twelfth century. The most conspicuous aspect of these features is the large number of trenches, especially in the centre and the south-eastern area of the site. These trenches are of varying character and it appears possible to distinguish different types. The groups of trenches seemingly derive from the twelfth/thirteenth and sixteenth/seventeenth centuries.

The foundations of 29 completely or partially preserved buildings from the thirteenth to eighteenth centuries were recorded in the culture layers. With just a few exceptions, the buildings are divided between a northern group on the farm site and a southern one. There were in addition fragments of what are thought to be patches of floor- and rubbish-layer sequences, and part rows of sill stones, predominantly of more recent times, possible earth cellars, 14 dated and 6 undated wells, etc. The majority of the features are interpreted as the central part of a farmyard which remained in the same place within the toft.

The small finds are quite limited and include 75 kg of pottery, 140 kg of faunal remains, small personal items, various iron and wooden objects including tools and a unique piece of a hook ard, and wood from re-used ships' timbers and buildings.

THE MEDIEVAL FARM UNIT

Comparative material

The geographical location of medieval farms, their resource-governed economy, and the social status of the inhabitants, must have affected the layout of individual buildings in one way or the other, of the

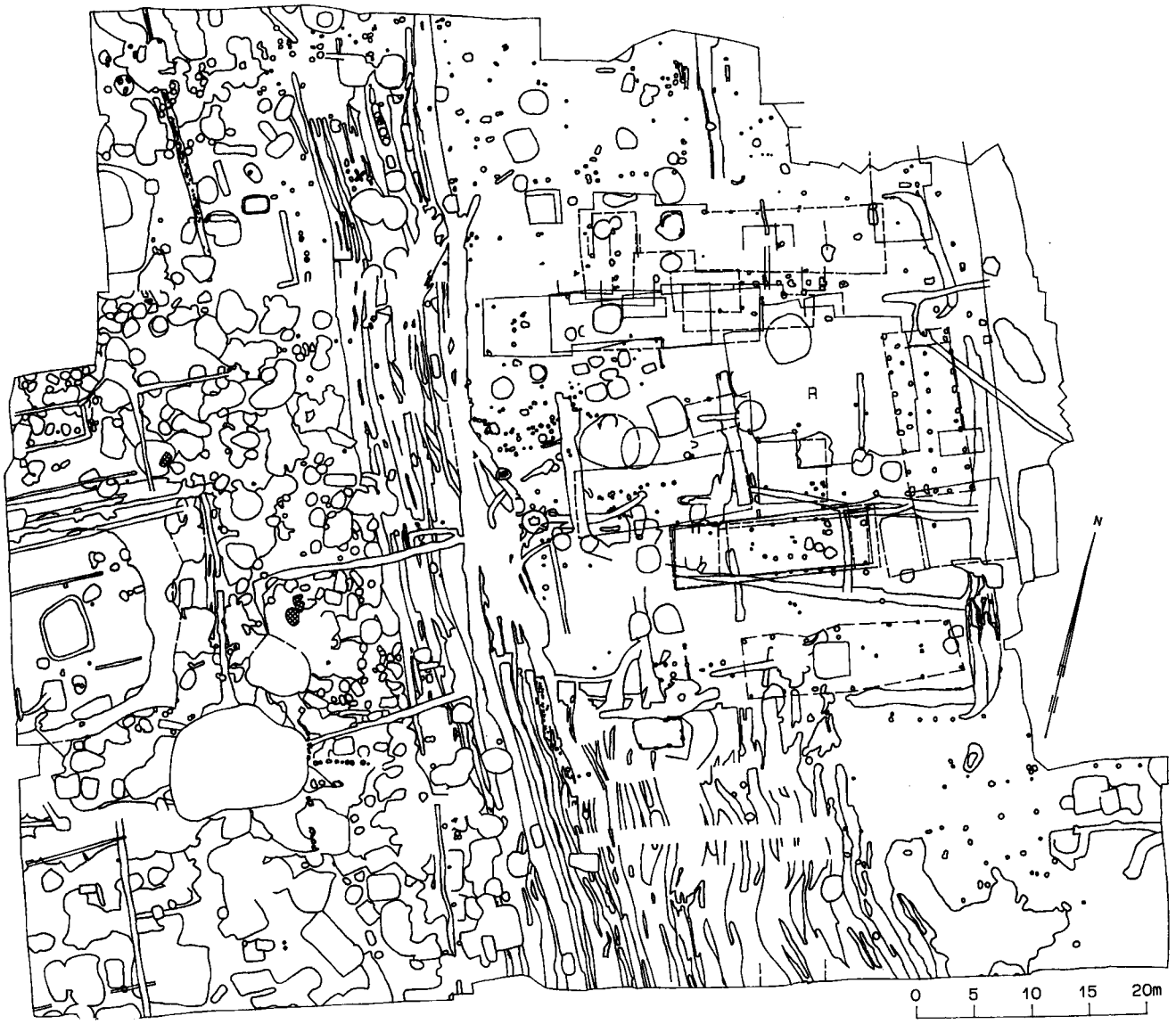

Fig. 3 Plan of all the features in the subsoil and selected features in the culture layers. R: recent cellar. Immediately to the east of the excavated area lies Englandsvej, the old village street. Drawn by TR/MSK/JP 1995/96.

number of buildings and of their position in relation to each other both close by and at a distance from the main farmstead. At the moment the evidence from Denmark is neither quantitively nor qualitatively sufficient to shed light on this issue. The few excavations that have hitherto uncovered significant parts of a farm unit of the High or Late Middle Ages have been of limited extent, either because they were rescue excavations or because of the excavator's particular goals; or the remains of the settlement have been severely truncated by subsequent ploughing. In no case, in consequence, has it definitely been possible to expose a complete farm site or farm toft[3].

The excavation at Tårnby apparently shows us a complete farmstead (the built area of the farm toft). The main parts of the toft have been uncovered too. The western limit of the toft is not known but its

southern limit is defined by several physical features and its eastern limit by the village street, now Englandsvej. Less certain, however, is its northern extent. In the following, the terms *toft* and *toft-boundary* refer to the farmyard toft and not the toft field (the 'croft').

The delimitation of the Tårnby farm

On the whole, the buildings can be described as well preserved, although there have been disturbances. A large modern cellar in the centre of the farm area has removed culture layers down to the subsoil in an area measuring 150 sq m. West of this cellar the later culture layers of the seventeenth and eighteenth centuries have been dug away. These interventions evidently did not affect the medieval culture layers as these follow a slight dip in the terrain.

The building grounds reveal a high degree of continuity of location (Fig. 3) represented by up to five consecutive buildings. With a few exceptions from more recent times, the building plots are concentrated within an area measuring 1,350 sq m. Archaeologically, continuity of building is revealed by two mounds in the northern and southern parts of the farm area produced by sequences of floors, an impression which is further enhanced by a slight dip in the subsoil between these two areas. There is no matching growth of layers over a substantial area around the buildings, probably because of the consistent use of waste from the farm to manure the small but efficiently cultivated land of the village. Because of the lack of clearly defined external layers it has not been possible to link the northern and southern settlement clusters by stratigraphic means, although a phasing yields some idea of contemporaneity between the buildings.

Most of the remains of the buildings lie together in the middle of the eastern half of the excavated area while the wells and cellars are spread out over a slightly larger area, albeit still in the eastern half of the site. All of the features are thus, with the exception of a few later wells situated on the clay moraine right out to a slight fall in ground level running north-south. This is particularly evident at the northern end of the site. This drop in level reveals the gradual change from the moraine to the slightly lower-lying coastal meadowlands. The boundary between these two resource areas was also reinforced by dense systems of trenches running north-south, possibly remains of a dyke guarding the higher, settled area of the toft (see below). With the dykes on the common in mind, it seems probable that the farm buildings were placed close to and respected the fall in ground level. The recorded western edge of the building plots thus probably corresponds to the original extent of the central farm buildings of one farm unit. The slightly lower land west of the farm buildings was where the cabbage patches and *abild* yards were situated in more recent times, and this was undoubtedly also the case in the Middle Ages. The soil in this area of the excavation was primarily an unstructured layer of earth 1.5 m thick with a number of modern features. Intensive garden cultivation in later years, for which Amager has become famous, may have destroyed any earlier settlement traces lying immediately west of the drop in terrain, but this would be a remarkable coincidence. A more pertinent question is rather whether the cluster of buildings discovered represents an entire north-south transect of the medieval farm unit.

The south-eastern corner of the excavation was characterized by a thick and homogeneous soil layer. Settlement was represented in the form of a cellar (B2) and the northernmost part of a building (B1) in the south-facing section of the excavation beneath Hallinggården, a parsonage from around 1787. Both buildings belong to the seventeenth and eighteenth century. Further building was identified only in the form of two small, highly fragmentary patches of paving, a few sill stones and a small clay surface. These may be remains of Hallinggården's predecessor, 'the old parish clerk's house', before Hallinggården was constructed as a new parsonage immediately south of here. Some may also be the remains of a later building recorded in the fire assessment of 1854 (Frandsen 1989:50ff.). Since the two buildings recorded in written sources are effectively unrecog-

3 Sites of the High and Late Middle Ages where large areas of a farm site have been uncovered are: Hejninge (Steensberg 1952; 1986); Pebringegården (Steenberg 1952); Store Valby (Steenberg & Christensen 1974); Tangen (Sterum 1976); Åstrup (Jeppesen 1982; 1983); Poghøj (Mejdahl 1987); Klemmenstrup (Rasmussen 1990); Jens Kusks Vej, Tjæreborg (Siemen 1991); Todderup (Hoff & Jeppesen 1994); Østerbyvej, Tjæreborg (Siemen 1991).

nizable archaeologically, one must assume that more recent interventions and disturbances have removed all building traces in the culture layers, and possible medieval deposits with them. It is, however, remarkable that in the southern area of the site there are no medieval features in the natural subsoil; only the aforementioned cellar (B2) and wells of the seventeenth to eighteenth century. The trenches may have removed medieval features, but one would still expect, *inter alia*, a continuing density of wells, as it is seen in the middle of the site, to be visible in between the trenches. The area, which may have belonged to the parsonage even in the Middle Ages, thus appears to have been undeveloped until the building of "the old parish clerk's house".

North of the cluster of buildings there is nothing earlier to be seen than sequences of layers from about 1400 continuing into modern times. Two earth cellars are the only medieval structures in the area.

Finally there is the boundary of the farmyard to the east, against the village street, now Englandsvej, where the lines of fencing and trenches apparently represent the eastern limit of the toft.

It would be reasonable to conclude that the excavation has uncovered a medieval farmstead from which the great majority of the building foundations in the area around the farm itself have been recorded. Some may have been removed by, *inter alia*, the modern cellar, while there may also be unrecorded functional buildings at the far west of the site at some distance from the central farmstead. Such doubts about the completeness of the farm unit are raised primarily by the lack of stalling.

The picture of 'the old parish clerk's house' and farms II and III from the Land Survey of 1688 is much more patchy because of disturbance and modern garden cultivation. Farm III could not be identified when the soil was stripped in 1993, although several buildings which cannot be clearly assigned to farms II or III were partially removed by a trial trench. Farm II, above the medieval farm area, is represented most clearly by a very well-preserved farmhouse of several phases[4].

4 A comparison of the location of farm II on the survey map of 1811 and several of the buildings revealed by excavation reveals close correspondence in extent.

Economic buildings

A general problem for earlier investigations of the High- and Late-medieval farm with well-preserved culture layers has been the recognition of economic buildings, as, for example, at Store Valby (Steensberg & Christensen 1974) and Hejninge (Steensberg 1986). Farmhouses have been recorded, but rarely functional buildings. The absence of economic buildings at these sites can be explained through the excavations having been concentrated around the farmhouse, through the economic buildings being harder to recognize, or through the excavations rarely having been of extensive, areal character. With the excavation at Tårnby it is now possible to reveal a composite farm structure with a changing number of economic buildings throughout the Middle Ages. If one assumes that the absence of a hearth indicates a functional building, around 75 per cent of the excavated medieval buildings in the culture layers at Tårnby can provisionally be identified as such[5]. In addition to this, the majority of the area of two of the buildings (A20 and A21) apparently primarily accommodated economic functions. None of the economic buildings differs architecturally from the houses. It is, however, striking that these buildings comprise only outhouses, storage buildings and sheds. No certain cattle stalls have been identified. The lack of stalling at Tårnby is remarkable and, in spite of the high proportion of economic buildings, sharpens the question about the fullness of our view of the farm. Were there economic buildings towards the back of the toft, in the machine-stripped soil layers behind the trenches protecting the farmyard? Were the stalls excavated, but not recognized as such – for instance building C19 (Fig. 8)? Were the stalls constructed of some perishable material such as turf, in order for it to be carried out to the fields as an efficient form of manuring together with the cattle dung, as, perhaps, the remains of C20 (Fig. 10)? Does the absence of stalls reflect the real situation with a special, climatically conditioned ecosystem and cat-

5 The hearth, however, is not an unambiguous indicator of function. Fire is used in association with certain forms of craft, and there was undoubtedly some seasonally governed functional change amongst the rooms. People presumably lived in the heated room in the winter and moved to unheated rooms in the summer.

tle remaining outdoors? Pig sties in the fields are known from written sources (Kroman 1942:77), but cattle were of much greater value, and one cannot imagine cattle stalls out on the coastal meadows. Another possibility is that the farm simply had no cattle stalls but that in the Middle Ages the cattle were concentrated on the main farm of Borgby.

DATING THE FEATURES

The two separate clusters with building-sequences and other features in the culture layers to the north and south of the farm plot, and a similarly stratigraphically isolated building to the east of the area, pose problems for the determination of the contemporaneity of individual buildings within particular dating brackets. Because of the paucity of datable finds the establishment of probable contemporaneity between individual buildings is of vital importance to the phasing of such features. The crucial structures in the subsoil can be related to one another stratigraphically. Similary the medieval building plots, with just one exception (U5), can be related to one another within their own clusters. On the basis of the stratigraphical evidence and datable artefacts it has been possible to divide the development of the toft and farmstead into seven phases running from the twelfth century to the eighteenth. The relatively sparse datable material means that there is uncertainty over the assignment of several buildings and wells to one out of two or more phases. Likewise most features in the subsoil can only be dated earlier than the overlying culture layers.

The dating of individual buildings and phases is based predominantly on the pottery. The earliest phase of settlement was findless, and is dated by building typology. No local pottery chronology has been worked out for the Copenhagen area,[6] so no local chronological variation can be built into the ordinary date-ranges of the pottery types. In addition, only 2,734 sherds were collected in the excavation, of which at most 2,250 are medieval.[7] The oxidized, externally glazed pottery of the thirteenth and fourteenth centuries can be followed through from the earliest settlement represented in the culture layers. The presence of stoneware is central to the separation of the thirteenth-century phase from the fourteenth and fifteenth centuries. Stoneware, however, constitutes only 5 per cent of the total quantity of sherds, and the absence of stoneware thus cannot be used as a secure basis for dating pre-1300.

Coins were also used for dating, including a number of civil-war issues with special significance for the dating of the High-medieval phases.[8] These datings are corroborated by a number of other dated objects such as, for example, double combs, or the presence of tiles. But a detailed and secure phase-division is not possible as the majority of the datable artifacts and pottery are chronologically insignificant, with broad date-brackets within the High and Late Middle Ages. The datings of the buildings in the northern cluster are particularly uncertain.

THE BUILDINGS

By means of excavation the sites of 31 buildings were recorded, 18 of which can be dated between 1100 and 1500 and the remainder to the sixteenth to eighteenth centuries. Sixteen of the buildings, dated 1200-1500, lay within the culture layers and thus greatly increase the evidence for buildings of the High and Late Middle Ages in the present area of Denmark, where only 44 High- and Late-medieval buildings from 21 sites have hitherto been published. It is evident that, because of the still limited amount of evidence, no discussion about possible developments in constructional techniques or the relationship between region, date and economic circumstances is possible.

6 The only published evidence from the area is from Stakhaven, Dragør, which, when more recent pottery is removed, consists of about 2,000 Late-medieval sherds (Liebgott 1979).

7 The material includes local reduced and oxidized wares together with a small admixture of jugs from Bruges and Flanders and stoneware from Siegburg, Langewehe, Niedersachsen and Raeren. The provenance of the stoneware was determined by cand. mag. J. L. Larsen.

8 A total of 45 coins were collected, two of which are uncertain and nine unidentifiable. Twenty-three coins can be dated to High and Late Middle Ages. The coins were identified by mus. insp. A. Kromann and mus. insp. J. S. Jensen of the Royal Collection of Coins and Medals, the National Museum.

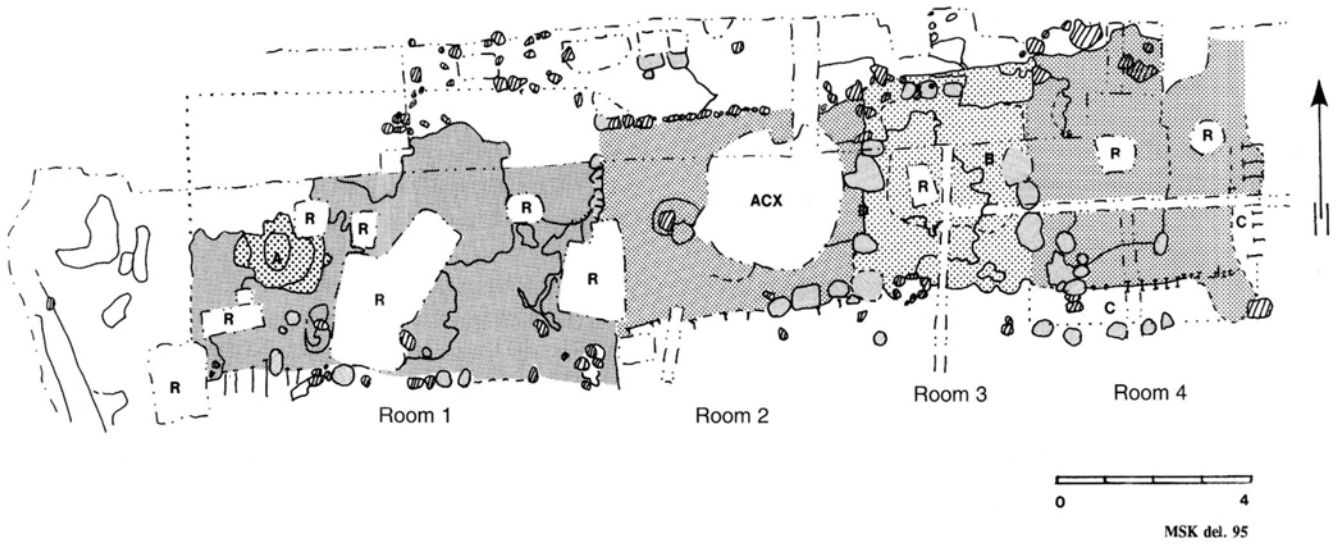

Fig. 4 Building A21 is a 19.5 metre-long feature aligned east-west and comprising four rooms. Its width varies from 3.4 to 5.2 m. It had a floor area of 84 sq m. The dwelling area was in the western room, and the other rooms apparently all accommodated economic activities. A: hearth in two phases; B: compact layer of fish bones; C: bench in the south-eastern corner of the room; D: doorway; R: recent; ACX: 17th-century well. The northern part of the building was excavated in 1993, the southern in 1994. MSK 1995.

Building practice

No clear image of either consistency or change in building practice immediately presents itself in the building remains from Tårnby, nor could anything of the kind be expected from material which is too small to be of statistical significance and which might at best just indicate some developmental tendency. The 18 medieval buildings are not only spread over four centuries in date; regional differences and minute differences from farm to farm, particular functions, the changing availability of building materials, regulatory restrictions, social needs, and not least mere tradition, can all determine the form of construction of any individual building. The buildings at Tårnby do, however, support the view of a development from buildings with earth-fast posts to sill- or wall plate-founded walls upon the ground around 1200 (Fig. 4). The High- and Late-medieval building remains typically show a mixture of different building techniques including post-bearing stones combined with sill timbers on the ground, individual post-holes, and scattered and irregular rows of sill stones comprising small stones measuring only 10 to 30 cm, though stronger, well-laid sill-stone rows with granite boulders measuring from 40 to 60 cm appear in the fourteenth and fifteenth centuries. The use of large boulders continues into more recent times when the constructional technique becomes more uniform.

The Tårnby buildings of the Middle Ages are predominantly one-aisled with roof-bearing walls, although a possible five buildings were of central-post construction. The wall material was presumably mostly daub. In one single case a turf building of the fourteenth to fifteenth century is recorded (building C20). Unfortunately only the gable end survived because of disturbance by the modern cellar. In three of the medieval buildings remains of turf-built part lofts were found above lath and plaster. Part lofts have previously been identified at Hejninge by Steensberg (1986:47ff.). With a few exceptions, the buildings are aligned E-W with only minor deviations. The buildings are of widely differing sizes and can be divided into three size-groups. Building A1/A2/A3 stand alone at 27 metres long. It is followed by two approximately equally large groups of buildings of 10-20 metres and up to 10 metres respectively. The plans of the buildings are fairly well preserved and in several cases it has been

possible to identify room-divisions and changes therein. Hearths were recorded in five of the medieval buildings but no furnaces.

The function of the buildings

Determining the function of the individual buildings depends upon the presence or absence of a hearth. In an attempt to identify different activity zones at the farm a functional analysis of the separate buildings and rooms on the basis of the distribution of finds was attempted. However the relatively small quantity of finds regrettably meant that this analysis was inconclusive.[9] Domestic waste and manure had been methodically removed from the farmyard, which means that the range of finds was severely reduced both at the microlevel of the individual buildings and at the macrolevel of the toft. At the time of writing only pilot studies of the faunal and geobotanical remains have been undertaken, and no comprehensive analysis of the complete material.

TRENCHES AND FENCES

In the subsoil of the site was a complicated system of trenches, especially in the central and eastern part of the site. Several stretches of fencing can also be reconstructed (Roland, in Kristiansen *et al.* 1994: 4ff.)[10]. The trenches are laid out in roughly two ways. One of these is a variety of single trenches, the other two trench-systems running north-south, the 'western trench group' west of the farm site and the 'southern trench group' to the south of it. Of these, the western group at least consists of two phases. The fences are, as far as one can tell, mostly to be assigned to the earliest phases of building.

The group of various *single trenches* is probably to be interpreted as a set of toft-boundaries, folds, pens and the like. Where the stratigraphy can be read, the single trenches are later than the earliest phase of the western trench group. These trenches lie beneath building plots dated to the thirteenth century.

The *western trench group* of long, regular trenches runs in the boundary zones between the moraine and the lower coastal meadows to the west (Figs. 5-6). This trench group appears to define the limits of the farmyard. It consists of 10 to 15 trenches[11] which are evidently not all contemporary but fall into a sequence moving from the west to the east. The last trench, however, of the sixteenth/seventeenth century, after a break of several centuries, was placed back in line with the earliest trench to the west. Stakes and posts were found associated with several of the trenches which can be interpreted as the traces of wicker- or lathwork fences or hurdles. In some places breaks in the trenches can be identified as entrances. The group can be divided into two phases, respectively earlier and later than the dividing ditch FCZ running east-west. The later group to the east is covered by a layer which probably belongs to or is contemporary with the earliest building in the northern building group, A21, dated to the thirteenth century (Fig. 7). A number of trenches to the west cut a layer which is dated post-1500/1600. The functioning period of the trenches was thus an extended one. The majority of the trenches, however, can be assigned to the twelfth and thirteenth centuries.

The *southern trench group*, consisting of 15 to 20 trenches, lies south of the building plots (Fig. 11). Here too a sequence of construction running from west to east can be identified. The trenches here follow a more wavy line. It cannot be determined whether the difference between the long, continuous trenches in the western trench group and the interrupted, curved courses of the southern group is a functional matter. These trenches are cut into a layer of fill above a hollow in the subsoil. This fill

9 Plotting of all finds and subsequent analysis of their distribution has been successfully used to reveal functional divisions and/or social structuration, e.g. in Czech excavations (Felgenhauen-Schmiedt 1993:132). The minute three-dimensional plotting of all finds has only been attempted on Steenberg's excavations in Denmark, although in this case, unfortunately, the large quantities of finds are not always given individual analysis.

10 Work on the structures in the subsoil was undertaken by cand. phil. T. Roland. The stratigraphical relationships between the fences and trench groups are based upon his work, and the various features have been assigned to the phases of the farm in collaboration with him.

11 The trenches vary in width from 0.4 to 1.7 metres, with most between 0.6 and 0.7 metres. Where the original top is preserved they are found to be 2 metres wide and 0.8 metres deep.

may be identical with the layer of fill referred to above dated to post-1500/1600, in which case the southern group must be dated to more recent times. The group lies below building B1 and cellar B2 which are dated to the seventeenth and eighteenth centuries. The sharply defined northern end of the trench group indirectly indicates a toft-boundary or some internal division within the toft. This boundary coincides with the southern extent of the group of single trenches. As the single trenches and the southern trench group are not contemporary, this situation must reflect the maintenance of a boundary line throughout the Middle Ages into more recent times.

In addition to the trenches there are a number of lines of *fencing* running both east-west and north-south. Most fences were observed in the subsoil. The fences are mostly visible only in fragments and the remains might often be interpreted differently. In many respects, however, they agree with the arrangement of the western trench group. It is likely that several of the remaining post-holes in the vicinity of the trench group originally belonged to similar lines which have, however, been so fragmented by later disturbances that they could not be identified as lines of fencing. Where the lines in the subsoil can be related to the building grounds in the culture layers (A20, A21, C18 and C19) the fences are earlier. Some fence lines are, however, also recorded within the culture layers.

The large number of sequentially dug trenches is thought-provoking, and in the case of the western trench group at least it is possible that they marked the boundary of the occupied area of the farmyard. A discussion of the meaning of the trench groups (Roland, in Kristiansen *et al.* 1994:47), indicates the critical conditions for the identification of toft-boundaries. To begin with, it is easier to clear an existing trench out than to dig a new one. Interpretation as drainage ditches is unconvincing as the trenches nearly all run the wrong way in relation to the natural slope of the land, while they also contain next to no water-deposited layers. Nor does an interpretation as field or bed boundaries appear probable. For one thing the trenches were originally of considerable depth, while also only a few such divisions would have been found at the same time. A fourth possibility is that they represent dykes consisting of ditches and banks, constructed to prevent the flooding of the settled area to the east. The constant improvement of the bank could explain the eastwards shift of the trenches, as it is conceivable that the bank formed of the upcast could collapse into the trench behind it. In rebuilding the dyke one would take material from the back, thus producing the parallel trench lines. But none of the numerous sections through the trenches have shown that the fill entered them to any especial degree from the western side, and this hypothesis does not explain why some trenches fall outside the general pattern of construction running from west to east by being placed in the middle of the system. Nor can the small number of entrance ways crossing the trenches be explained in the context of a dyke.

Since this is a common structure, running right across several farm tofts, perhaps the entire village, the idea of a dyke structure seems plausible in spite of everything. Its west-east line both before and after the toft regulation of phase 2 with trench FCZ does not allow the trench group to be interpreted as a western toft-boundary.

The function of the southern trench group appears to have been truly strange. Its location leaves no space for building, and the function (whatever it may have been with these irregular and undulating courses) must have been abandoned at the latest with the construction of Hallinggården's predecessors, building B1 and cellar B2, which cut across the line of trenches. There can be no question of it being a toft-boundary as the distance from here to the village street immediately east of the area of excavation, the present Englandsvej, is simply too small, irrespective of variation in the medieval street line; and there is no basis for assuming that in the High and Late Middle Ages the street line was radically different. If the trench systems are to be interpreted as dykes we cannot explain why it was found necessary to continue improvements for three or four centuries on the southern toft after they had ceased on the toft to the north.

THE TOFT AND THE DEVELOPMENT OF THE FARM SITE

In Denmark, the structure of the farm in the Viking Period and the earlier Middle Ages is generally characterized by buildings dispersed over the whole farm

Fig. 5 Phase 1, with the earlier toft layout and the earliest phase of the western trench group. The smaller number of trenches to the south of the group was caused by the deeper clearance of the overburden of layers of fill which looked like the subsoil. TR/MSK/JP 1996

toft, while in the eighteenth century a compact farm complex right beside the village street was typical. When the change took place we do not know (Porsmose 1991:194). The excavation at Tårnby shows it to be probable that this farmstead lay alongside the village street as early as the twelfth century.

Because of the absence of continuous culture layers over the surface, it is difficult to explicate the development of the farm plan or the chronological relationship between the groups of buildings. The following phasing of the farm area and toft is based upon a number of stratigraphical observations combined with probable associations where mutual relationships are otherwise lacking.

Fig. 6 Phase 2, with the regulation presumably effected in the twelfth century and the latest phase of the western trench group. The buildings may belong to both phases 1 and 2 but are probably to be assigned to phase 2. The farmstead is divided into a cattleyard and a stackyard. Arrow: entrance; R: modern cellar. TR/MSK/JP 1996.

Phase 1. 1000-12th century(?) Trench lines from an earlier toft division

This phase (Fig. 5) may show part of a larger toft whose limits were not revealed by excavation and which is divided into western and eastern parts by a system of trenches running north-south (the earliest phase of the western trench group). There may be a case for the northern toft pertaining to an earlier village structure with four large tofts situated around a green (see below). Approximately in the middle of the area of excavation can be seen a real break in several of the trench lines, while the trenches end or are interrupted at the northern limit of the excavated area. These breaks must represent entrances. It cannot be determined, however, whether the end

of the trenches to the north is likewise due to an entrance way or is the real limit of the trenches. The function of the trenches is not obvious. Interpretation as the remains of dykes is speculatively proposed but they served in any event as an internal boundary line for the slightly higher eastern area of the farmyard. The earliest phase of the trench group may be contemporary with the buildings and several trenches marked on phase 2 (Fig. 6) but this cannot be verified stratigraphically. Both structures U1 and U2, also shown on phase 2, can be interpreted as the remains of buildings but are more likely to have been fence lines or droveways associated with one or both of the trench phases.

Phase 2. Toft regulation in the twelfth century

In this phase (Fig. 6) a regulation of the large toft was effected by means of the later, isolated east-west trench FCZ. The parcel division is probably to be dated to the twelfth century, though the thirteenth is possible. Trench FCZ is probably to be identified as the boundary between the new farm toft and the parsonage land to the south. In different physical forms this boundary can be traced as a fixed division right through the Middle Ages and more recent times (trench FCZ in the twelfth century [phase 2]; the angled terminal of trench GMC in the thirteenth and fourteenth centuries or later [phases 3-5]; and the abrupt northern end of the southern trench group in the sixteenth and seventeenth centuries [phase 7]: see below). Interior trenches and fences contemporary with the settlement also belong to phase 2.

The western trench group of phase 1 continues to shift eastwards in its later phase, cutting across FCZ and FBH. Functionally, this trench group must now relate to several tofts, delimiting the area immediately up to the farmsteads. In the latest phase of the western trench group the entrances of its earliest phase were closed. East of the trench group and parallel to it can be seen a line of fencing. This fence can only be followed in the northern part but that may be due to the digging of the southern trench group in phase 7. The fence could have been just one of many, as is hinted at by scattered post-holes and small fence lines preserved in between the closely spaced trenches.

The east-west line of fencing in the north can only be dated to before phase 6 but was probably established in phase 2 or phase 3. Its contemporaneity with phase 3 seems to be established by the angled northern end of trench IKV which respects the fence line (Fig. 7). Its position may mark a toft-boundary, although it apparently did not continue west of the western trench group like trench FCZ. This, however, could be just a matter of preservation. The stratigraphical relationships between the northern fence, the later phase of the western trench group, and the inner lines of fencing parallel to this, are unknown. The interpretation and dating of the fence to the north is essential to the understanding of the subsequent development of the toft as it could either be a fence within the toft or a toft-boundary. If it were simply a subdivision of the toft, the extent of the latter is not known. If, on the other hand, it were a genuine toft-boundary, three tofts can be seen in the area excavated. In the middle of the area is a toft 40 metres wide. This toft is bounded to the south by a trench and to the north by a fence. North of this can be seen the southern part of another toft, perhaps including well ADC. This well, however, can only be dated as earlier than building A1/A2/A3 (phase 6). South of the central toft can be seen the northern part of a toft with no medieval building remains. The western boundary of the tofts is not known. Minor stretches of fencing running north-south towards the east may be parts of a longer fence that was partially removed by the later trench systems of phase 3. This fence could be a toft-boundary against the village street.

The earliest buildings in the area (and of these only U3 and the well KME) can only be dated as earlier than phase 3 and could therefore be contemporary with both phases 1 and 2. If U1 and U2 are simply to be interpreted as fences or something like that, the earliest phase of the farm consisted of building U3, probably the undated building U5, and well KME. No finds were made in association with this phase, the dating of which is based on building typology. The stratigraphical relationship between trench IFX of phase 3 and well KME is uncertain, although the trench appears to cut the well. Building C7 above U3 (Fig. 8) could also possibly be assigned to this phase, though its dating is highly uncertain. The view of the stratigraphical relationship between these two buildings depends largely upon

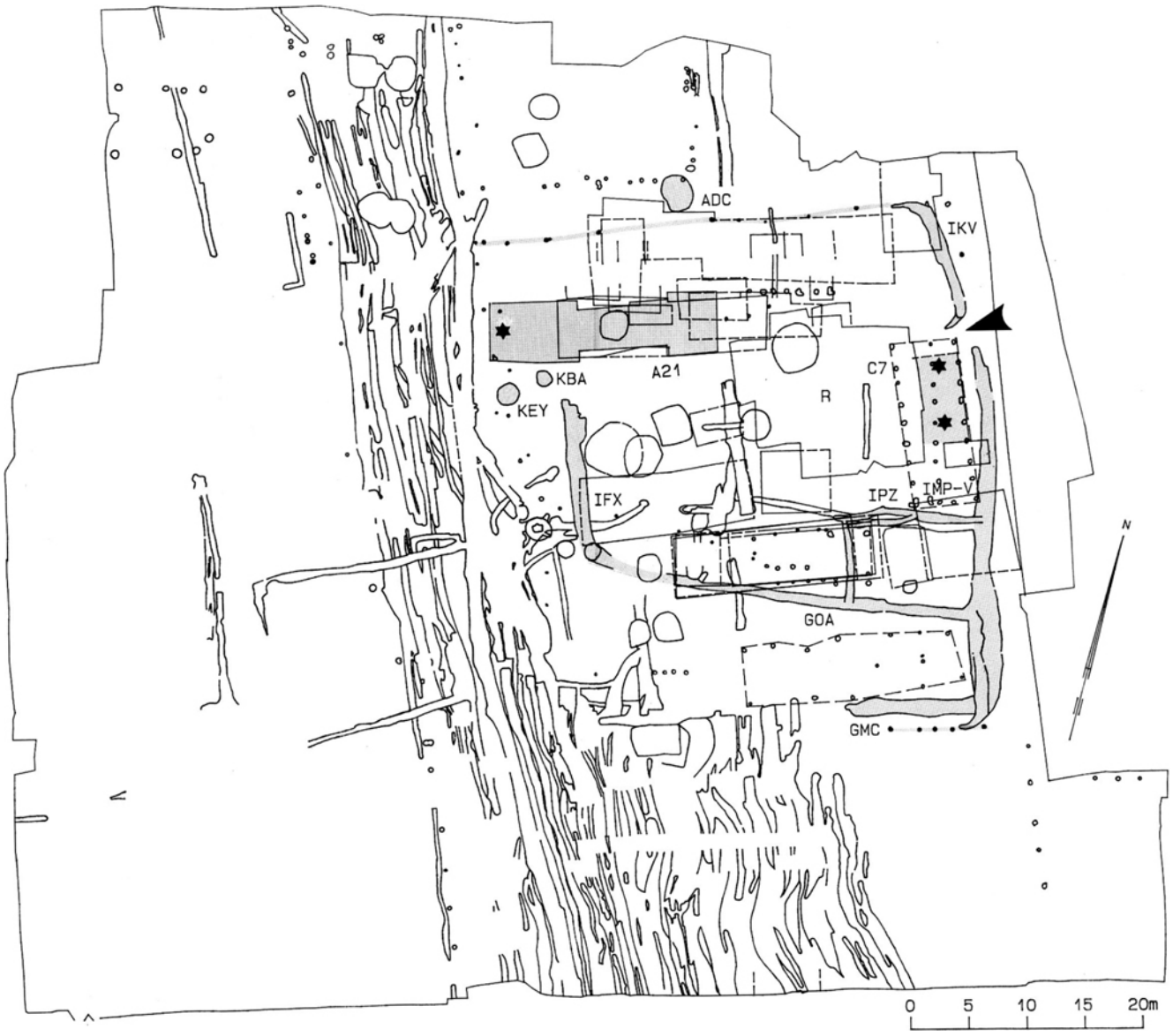

Fig. 7 Phase 3. Stars: hearths. Arrow: entrance. R: modern cellar. TR/MSK/JP 1996.

whether one regards the precise overlaying of the eastern wall of the buildings as a constructional modification of a single building (from the post-built U3 to the sill stone-founded C7), or as a pure coincidence deriving from the boundary of the toft immediately east of here. Building C7 cannot be traced to the same northern and southern extent as U3. In the former case, with continuity between the two buildings, C7 would be contemporary with or earlier than the north-south trench IMP-V belonging to Vwest continues in trench GOA and IFX beneath building C19 (phase 4). The construction of building C7 could thus be earlier than or contemporary with C19 (fig. 8). In the other case, in which the superimposition of C7 upon U3 is attributed to chance, C7 can still be placed in any one or more of the subsequent phases 3 to 5. Stratigraphically, building C7 is quite isolated from the other High- and

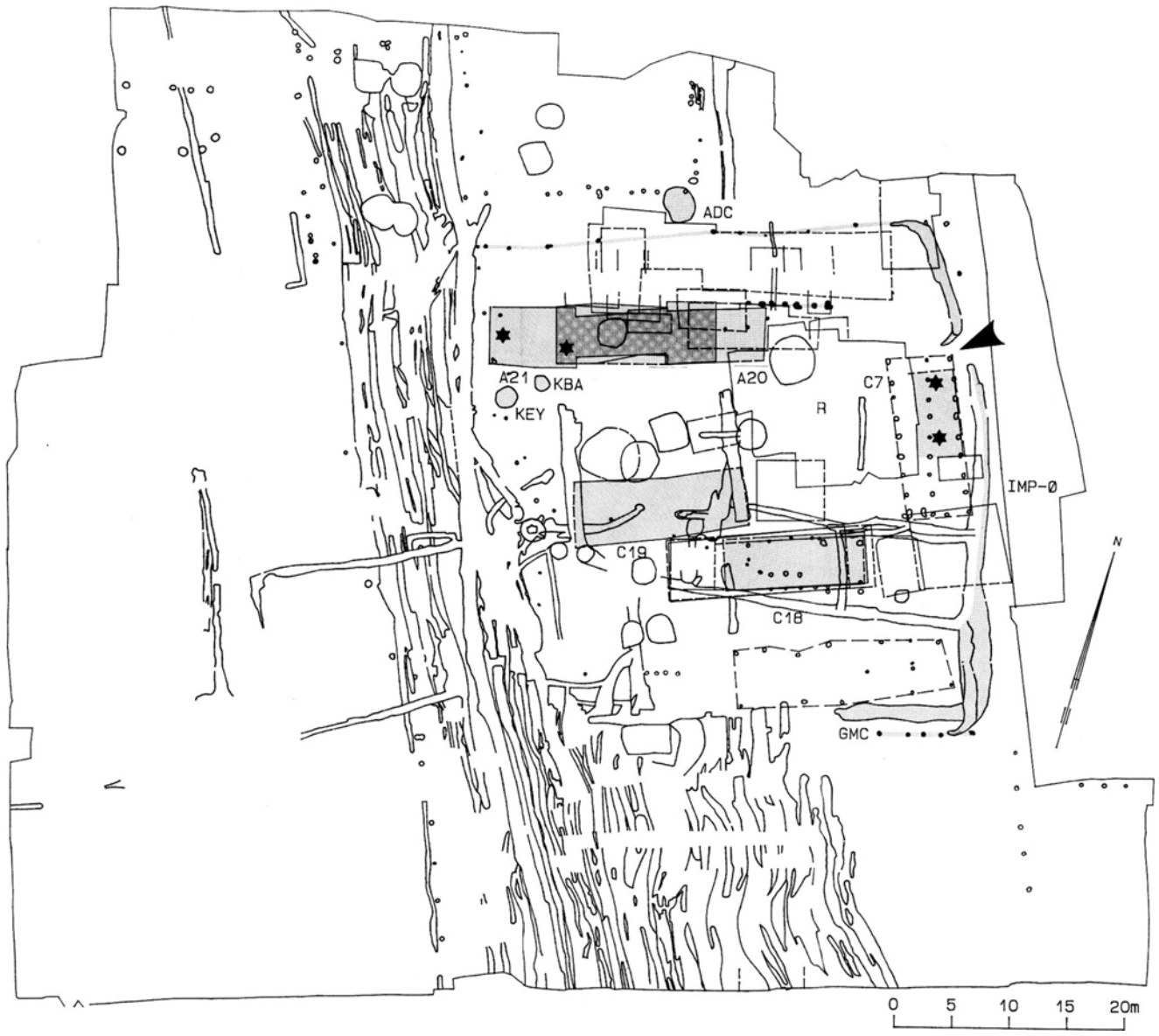

Fig. 8 Phase 4. The 13th-century farmstead in a two-winged, possibly three-winged, layout. Stars: hearths. Arrow: entrance. R: modern cellar. TR/MSK/JP 1996.

Late-medieval buildings of the farmstead. It should be noted that a few glazed jug sherds of the High Middle Ages were found in building C7.

The area in which U3 (C7?) and U5 lie was divided by trenches FBH and III together with the line of fencing on the inside of the western trench group. The gap between trenches FBH and III and the corresponding end of the fence line looks like an opening. This suggests an internal division of the farmyard into a cattle yard (fægård) and a stackyard (lægård).

Phase 3. An angular line of trenches with or without buildings

This phase (Fig. 7) is represented by enclosing trenches. The trenches overlie building U3 and well KME of phase 2. The southern limit of the trenches, at GMC, corresponds to the location of the toft-boundary trench FCZ in phase 2, indicating the maintenance of the boundary to the south though in a new physical form. The fence along the village street is now replaced by a trench, IKV and IMP-V. An entrance from the village street can be seen. The line of fencing to the north is undoubtedly to be associated with this phase. Note the northern end of trench IKV which merges into the fence line.

The only building of this toft is building A21 and possibly the abovementioned C7. Building A21 with the wells KBA and KEY cannot be related stratigraphically to the single ditches of phase 3. Phase 3 would thus have been a phase in which the area was not built upon, as it is not probable that C7 – for reasons of its size – was the only building there. A21 is dated to the thirteenth century. It overlies the north-south fence east of the western trench group. Similarly a layer contemporary with A21 may overlie the latest trench of the western trench group. Thus the abandonment of the western trench group took place either in this phase or the next, phase 4, according to where we place building A21.

Phase 4. A three-winged structure? Thirteenth century

From the thirteenth century onwards we find a continuous sequence of building foundations in the culture layers (Fig. 8). The settlement is of a very stable character, producing sequences of buildings involving several superimposed building grounds. Building A21 and with it the decommissioning of the western trench group may, as noted, belong to this phase or to its predecessor. With C19, the earliest building of the southern building group, the line of trenches GOA, IFX and IMP-V is likewise covered over. The northern east-west fence from phase 2 may have remained in use, as may trench GMC. In GMC a reduced-fired jug was found which can be dated to the thirteenth century at the earliest, and the trench must have been filling up at this date or later. Trench GMC is presumably equivalent to trench IMP-Ø. IMP-Ø may therefore be the continuing marker of the farmyard boundary against the village street.

The farmstead of this phase comprises the buildings A20, C19 and the later C18, possibly A21, and perhaps C7 too (cf. above), and the wells ADC, KEY, and possibly KBA (contemporary with A21). Of these, ADC and KEY may stratigraphically also belong to the following fourteenth-century settlement (phase 5). Building C18 burnt down before 1300-1320.

Building A21 lies to the north and was succeeded by building A20 which was shifted slightly eastwards. To the south building C19 can be seen to be followed by C18 with a shift towards the south-east. Out by the village street may have been C7, but if C7 belongs to either an earlier or a later phase there would only have been two parallel wings.

If one interprets hearths as evidence of occupation, this function is represented in the westernmost rooms of A21 and A20 and in C7. C18 and C19 are both functional buildings, as may have been the eastern rooms of A21 and A20. Since we must always assume at least one residential room, A21 or possibly A20 alone is placed in this phase. Since it is not possible to assign A21 and C7 to a particular phase with certainty, it is consequently impossible to determine which of the wings is the older, while regrettably the basic plan of the farmstead of the thirteenth century also cannot be explicated in detail. We do not know when the closed farmstead known from more recent times came into being, and definite evidence of a farmstead with three separate wings in the thirteenth century would have been of interest in this respect. Building A21 and its successor A20 may both, with their combination of a dwelling space and economic space, in fact have lain alone with no supplementary buildings. We also do not know whether A21 and/or A20 stood at the same time as the functional buildings C19 and/or its successor C18.

Phase 5. Re-organization of the layout of the farm, 1300-1350

This phase of the farm (Fig. 9) is dated by the presence of stoneware and civil-war coins. The south-

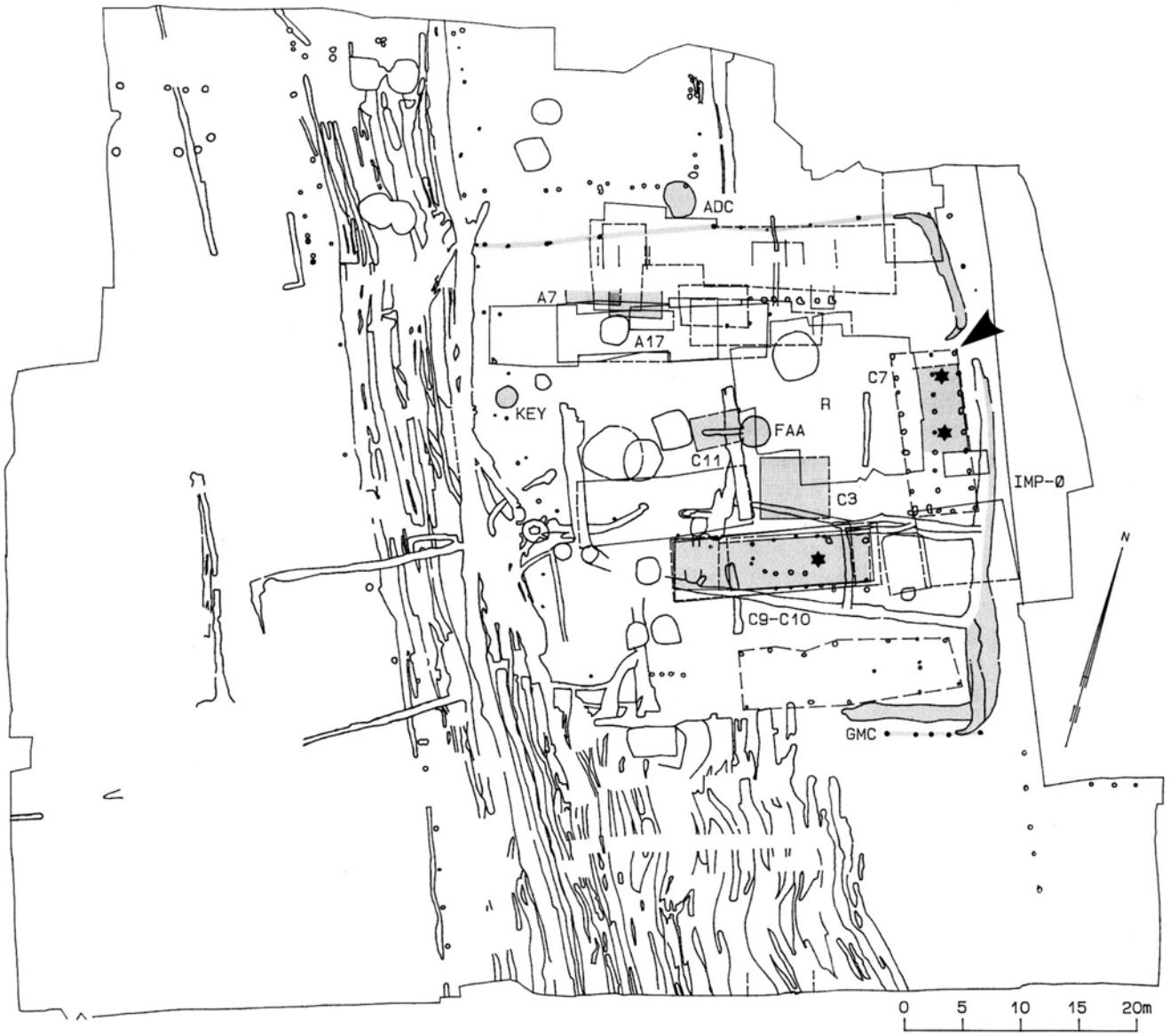

Fig. 9 Phase 5. At the beginning of the fourteenth century the dwelling area was moved from the northern part of the farmyard to the south. Stars: hearths. Arrow: entrance. R: modern cellar. TR/MSK/JP 1996.

ern boundary is not clearly represented in physical form in this phase. However, the boundary must have been maintained as it still is respected in phase 7. There is therefore no reason to suppose that there was any expansion of the toft southwards into the low-lying and possibly saturated area. In phase 5 or later trench GMC (=IMP-Ø) went out of use.

The dwelling house A20 was superseded by a stage involving the functional buildings A17 followed by A7 (both of them partly removed during the trial excavation in 1993), together with C11 in the centre of the farm area. C11 was cut by well FAA, which is in turn covered by the functional building C3. Because of the uncharacteristic and homogeneous layers we cannot tell if C3 is contemporary with or later than dwelling house C9-C10, so C3 could belong to both this and the next phase.

With the small economic buildings A17, A7 and C11, the residential function of the northern sequence of buildings came to an end. In order to keep

Fig. 10 Phase 6. With the construction of the largest of the medieval buildings in the fourteenth century the toft was probably extended towards the north. Stars: hearths. R: modern cellar. TR/MSK/JP 1996.

some dwelling place within the farmstead, either C7 or C9-C10 must be contemporary with those buildings. C9-C10 supersedes a functional building C18 of phase 4 in the southern building sequence after it was burnt, sometime before 1300-1320. From having an economic function, the southern area of the farmyard now assumes the residential role. Perhaps C7 was first demolished in this phase, and the residential function was moved to C9-C10? Three wells, ADC, KEY and FAA may also belong to this phase.

C9-C10 apparently burnt down in the mid-1300's, and it may have been on this occasion that the centre of gravity of the farmstead shifted northwards with A1/A2/A3, although the relationship between the dates of C9-C10 and those of A1/A2/A3 is completely unknown. It is therefore quite possible that the two buildings were both standing at the same time.

Fig. 11 Phase 7. Sixteenth to eighteenth centuries. Only dispersed buildings from farms II and III of the 1682 survey are preserved. Another trench group can be seen on the southern toft. Stars: hearths. Circles: stoves. Square: jamb stove. Arrow: entrance. R: modern cellar. TR/MSK/JP 1996.

Phase 6. Expansion of the toft, 1350-1500

With the construction of A1/A2/A3 at the latest (Fig. 10), the main building of phase 6, the northern fence line must have been decommissioned. If this were, as already discussed, a toft-boundary and not some internal partition, the farmyard was extended to the north in phase 6. The northern boundary of the toft must then lie outside of the area excavated and the toft would now have been at least 55 m wide.

Building A1/A2/A3 is, at 27 m long, the longest building excavated, and it accommodated a dwelling space to the west and economic functions to the east. It was supplemented by the small functional

buildings A8 and A9. C20, the only turf-built structure excavated, superseded A9, to be replaced in turn by functional building A13. Building A13 can at least be dated to the end of the fifteenth century although it could still belong to the sixteenth century. The possible earth cellars ZA and AOA may be assignable to this phase too, but both their function and their date are highly uncertain. A fence line between these cellars and the main building may belong either to this or to some later phase. Wells KIC and possibly KEY are of this phase too.

Phase 7. Buildings and the latest trenches, sixteenth to eighteenth century

The post-medieval farmstead in the central toft (labelled farm II in the survey of 1682) is poorly preserved because of later digging and gardening, although some building grounds have been fully uncovered (Fig. 11). Building C8, also the only building in the culture layers with earth-fast roof-bearing posts throughout its eastern half, and the overlying building C1, are both well-preserved houses and it is possible to trace their changing layouts. The buildings contain stoves, the only ones recorded in the history of the farm. A curious detail is that building C1 eventually abandoned its chimney in favour of a hearth placed directly upon the clay floor. This farm also comprised cellars C5 and C6 and barn C2. To the east, by the village street, one can see a long manure bunker (KMD). The arrow marks an entrance across this. Buildings A4, A5, A6, A18 and A22 (all partly removed in 1993) and D1 lie in the boundary zone between farm II and farm III to the north. This phase also comprises wells OGF, ACX, ILG, KBE, BVA, KIP, IRP, and GHP together with six undated but probably contemporary wells. After 1682, the width of the central toft was again reduced (according to the toft-widths given in the Land Survey of 1688), but the northern toft-boundary has left no physical traces in the area excavated.

On the southern toft, which may have belonged to the parsonage, the southern trench group, of unclear function, was established. This may be datable to the sixteenth or seventeenth centuries. The northern limit of the trenches agrees with the course of trench FCZ of phase 2 and the southern limit of the single trenches of phase 3. Certain trenches of the western trench group, probably from one continuous line, show that the function of this group had been resuscitated. In the seventeenth to eighteenth centuries building is found in the southern toft for the first time, in the fragmentary form of building B1, cellar B2 and a few extremely badly damaged building remains (not marked on figure 13) which may have belonged to 'the old parish clerk's house', the predecessor of Hallinggården immediately south of the area of excavation. This building is later than the southern trench group.

THE STRUCTURE OF THE VILLAGE

The development of the village can only be considered retrospectively in the absence of written sources. It is based on just three archaeological observations, namely the excavation of Tårnby Torv described here, a minor trial excavation immediately west of the church, the site called 'Mrs Olsen's house',[12] and the investigation of the Viking-period settlement on the later toft fields east of Englandsvej.

Nowadays Tårnby has the character of a strip village north of the church along Englandsvej, a road which was probably the route between Copenhagen to the north and Dragør at the southern end of the island as early as the Middle Ages. The northern and southern halves of the village are of fundamentally different character (Fig. 2). The strip village to the north has typically elongated, regular, defined tenements, each one with its own droveway or with a shared droveway out to the common and the coastal meadows to the east. Around the church in the southern part of the village, however, the picture is radically different, with small house plots lying this way and that in small, coherent blocks surrounded by droveways. The excavated area of Tårnby Torv lies exactly over the area between these two types of village layout. These completely different patterns of division have led to discussions of the development of the village (Mahler 1994), and it has

12 This site was subjected to trial excavation in 1994 (J.nr. SØL 476). Sherds of glazed jugs were found and some more recent pottery. Culture layers were also recorded, and features cut into the natural which continued underneath the churchyard wall.

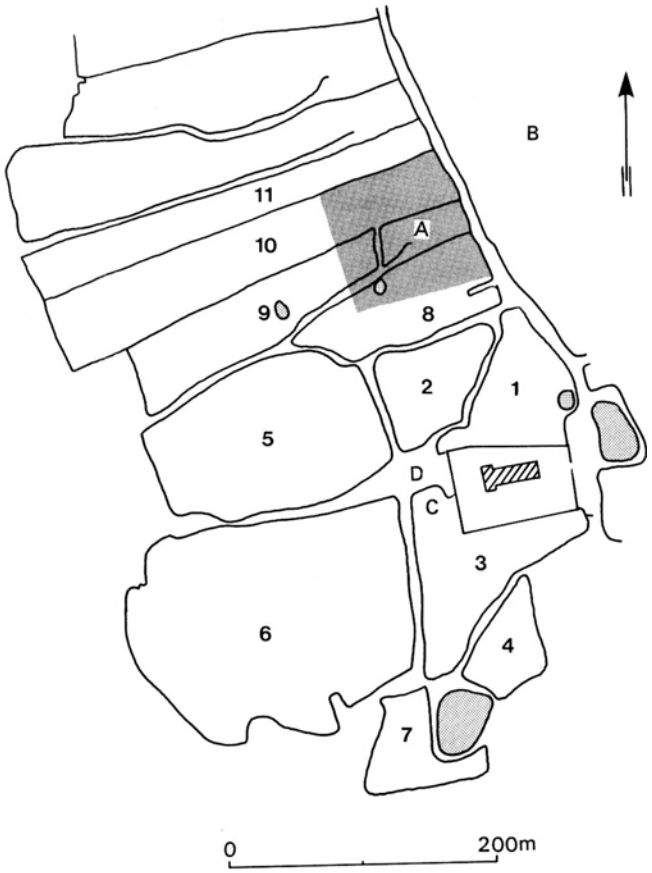

Fig. 12 A: excavated area. The excavated medieval farmstead is in the middle toft marked. B: Viking-period settlement. C: 'Mrs Olsen's house'. Suggested original village layout: areas 5 and 6 are both individual tofts. Areas 1, 3, 4 and 7 can be regarded as one integral toft. Area 2 may be part of a toft although it could also be the village green, which survived on to the 1811 map as a small area (D) in front of the church. Area 8 fits into a natural space north of 2 and 5, while the character of the droveway between 2, 5 and 8 indicates that 8 fits in the original picture as yet another toft. The northern part of the toft is covered by the later, narrow, regulated tofts. 9 presumably originally belonged to 8, but a droveway was placed between 8 and 9 when the tenements were redefined (after Mahler 1994).

been suggested that the original village consisted of four large tofts arranged around a green (Fig. 12). The church was built on the largest toft. The row of narrow tofts to the north is later and crosses the old toft pattern. The strip village may have developed slowly, but its consistently regular plan rather suggests its establishment in one go. To corroborate this theory it would be important to be able to demonstrate the existence of an eleventh-century settlement in the southern half of the village by means of archaeology.

The results of the excavation at Tårnby Torv seem to support this theory. The earliest phase of the western trench group in the large, undefined area without building, phase 1, may be part of the northern toft of the old village layout. With trench FCZ in phase 2 (twelfth century?) settlement within the excavated area was regulated. Whether this regulation is of only local relevance or could have been applied to as much as the whole village depends, however, on the interpretation of the northern east-west fence line of phase 2.

If this fence is interpreted as no more than an internal division of a larger toft, the extent of this regulation is not known, nor is it known when the organized strip village was established. It could in this case just as well have been caused by, for instance, the Swedes' burning of the village on October 10th, 1658, as it would have been undertaken in the earlier Middle Ages. If, by contrast, the fence is considered to have been a real toft-boundary, is shows that the establishment of the strip village probably took place in the twelfth century. Since the strip village is so regular, it was probably laid out in its entirety at a single time. Could this re-organization have been undertaken by bishop Absalon, making the main farm of Borgby more efficient, by splitting up the four farms of the eleventh century into smaller units in the new strip village?

The extension of the toft in the fourteenth to fifteenth century, phase 6, can be interpreted as a unification of the central toft in the excavated area and the one to the north. This may be the first archaeological example of the development recorded in written sources from cultivation by poor cottagers (landbo) and villeins (gårdsæde) to the larger 'equal-sized' copyhold farms (fæstegård)? The toft was reorganized once more before 1682, when it was reduced in width (the situation in figure 2). The sizes

of the farm tofts in the whole village are now indirectly given by the 1682 field book's measurements of the farms' associated toft fields.

AN EQUAL-SIZED COPYHOLD FARM?

Written sources for the social status of the farm

It would be helpful to shed some light on the social status of the farm in relation to other medieval farms under the Bishop of Roskilde, and to try to classify it as cottager or villein farming. Tårnby is imperfectly recorded in the Land Book of the See of Roskilde. The number of farms and the tax dues from each one are not given. A calculation of the size of the medieval farms of Tårnby and a comparison between Tårnby village and the excavated farmstead on the one hand, and other villages of Sjælland and farms in the Land Book is therefore, unfortunately, impossible.[13] On the basis of an analysis of the Land Book of the See of Roskilde a general development away from the manorial estate/smallholding farm system in favour of the establishment of equal-sized copyhold farms has been demonstrated in the fourteenth and fifteenth centuries (Christensen 1964: 277). It does not, however, appear to be possible, as Christensen suggested, to demonstrate a liquidation of the Bishop's manor on Amager.[14]

An archaeological example of an 'equal-sized' copyhold farm?

Although there may be several ways of explaining the development of the plan of the farmstead through time, it is still tempting to turn to the archaeological record. The analysis of the possible toft-boundaries at Tårnby Torv suggests the occurrence of an expansion of the toft in the fourteenth century. On the basis of a presumption that the development from villeinage to an 'equal-sized' copyhold farm would also involve an increase in the size of the farm, the size of the farm will be considered to see if there were such an expansion in the fourteenth century.

In what follows, various possible building combinations are set up for the different farm phases of the Middle Ages and the roofed space of the farm. For this, a farmstead consisting of two parallel wings is assumed for the thirteenth century within which the two older and the two younger buildings in each sequence are contemporary, although in reality both A21 (85 sq m) and A20 (88 sq m) combining, as they do, residential and economic sections, could have stood alone.

Figure 13 shows a strong increase in the area of the farmstead in the fourteenth century (models 7-9). If building C9-C10 was in existence at the same time as building A1/A2/A3 (model 7-8) this growth can be dated to the first half of the fourteenth century. If these two buildings were not contemporary the date of the growth of the farm becomes more spread out since the construction of building A1/A2/A3 can be dated to the fourteenth century generally (model 9). The increase in area coincides with the possible extension of the toft in the fourteenth century, which was maintained throughout the rest of the Middle Ages. Is this, then, an example of what the Land Books call an equal-sized copyhold farm, or is this just a local development affecting this one farm?

CONLUSION

Through the excavation in Tårnby village, with its well-preserved culture layers and the extent of the area uncovered, it has, for the first time, been possible to follow the development of a farmstead, probably in its entirety, through several phases from its foundation in the twelfth century to its abandonment in the nineteenth century in favour of another building. Most of the farmyard has been defined, although its western limits are missing and the interpretation of the northern limit is uncertain.

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13 The scope for assessing the social status of the Tårnby farm is considerably better in more recent times where one can base oneself upon the Land Survey of 1688. About half of the farms in Tårnby were of the size of 4 to 8 tdr htk (='barrels of hard corn'), along with about 52% of the farms on Sjælland, while the remainder were of 8 to 12 tdr htk, as about 19% of the Sjælland farms (Christensen 1964, 283). The excavated farm II was one of the latter group.

14 Information from dr. phil. K.-E. Frandsen, Institute of History, Copenhagen University.

Phase	Models: possible building combinations	Floor m²
1?-2	1. U3+U5	157 (182)
3	2. A21? (+C7)	85? (110)
4	3. A21+C19 (+C7)	160 (185)
4	4. A20+C18 (+C7)	136 (161)
5	5. C9-C10+A17+C11 (+C7)	98 (123)
5	6. C9-C10+A17+C3 (+C7)	114 (139)
5-6	7. C9-C10+A1/A2/A3+A8+A9 (+C7)	246 (271)
5-6	8. C9-C10+A1/A2/A3+A8+A9+C3 (+C7)	275 (300)
6	9. A1/A2/A3+A8+A9+C3 (+C7)	205 (230)
6	10. A1/A2/A3+A13+C3 (+C7)	202 (227)

Fig. 13 The changing area of the farmstead through the Middle Ages. The models show various possible combinations of contemporary buildings within the different phases of the farm. Model 1 represents the twelfth century, models 2-4 the thirteenth century, models 5-9 the fourteenth century, and model 10 the fifteenth century. The sizes given for A13, A17, C7 and C11 are minimum sizes as these buildings were not preserved to their full length and width.

Thirty-one complete or partially preserved building grounds were uncovered, eighteen of which are medieval. The 16 building plots in the culture layers of the High and Late Middle Ages give a massive boost to the quantity of building evidence from this period. The change from earth-fast posts to structures resting on the ground surface is very clear. Unfortunately this transition cannot be dated with certainty as the earliest buildings, with earth-fast posts, can only be dated by typology. The earliest building grounds within the culture layers are dated by finds to the thirteenth century, and an architectural change in this period would fit the general picture well. This agreement may, however, be purely coincidental, as the shift from earth-fast posts to structures resting on the ground surface was probably regionally governed. Unlike in earlier investigations of High- and Late-medieval rural settlements, a high proportion of the buildings excavated are economic buildings and small outhouses. The absence of clear evidence of stalling is noteworthy. In addition to the building remains, 20 wells were recorded, fourteen of which are from the Middle Ages, together with various trench and fence systems which are interpreted as possible dyke structures, toft-boundaries and internal partitions within the farmyard.

The buildings of the Tårnby farm lie in the same place in the toft beside the village street throughout the Middle Ages, with different layouts, until they were superseded by the four-unit farmstead known from the survey map of 1811. It is thus possible for the first time to demonstrate continuity in the position of buildings lying beside the street back to the earlier Middle Ages, a view which is otherwise only afforded by the villages' surviving census topography of the seventeenth and eighteenth centuries. The layout of the Tårnby farm, with its freestanding units placed parallel or at angles to each other, confirms the hitherto feeble archaeological image of the medieval farm.

The earliest form is the farmstead with two units placed at an angle in the cattleyard and stackyard respectively. The buildings are constructed with earth-fast posts, and are typologically dated to the twelfth century. The farm was presumably established on an earlier toft after a re-organization of the village, which was transformed from a village around a green to the regular strip village. It is possible that the eastern side of three farm tofts can be seen in the excavated area, but the interpretation of a fence in the northern part of the area is debatable. If not, only two tofts can be seen, and the establishment of the tightly regulated strip village may be a later development. In the thirteenth century the farm apparently consisted of units placed parallel to one another in a northern and a southern wing, possibly combined with an eastern wing along the village street. In the northern unit residential and economic functions were combined while the southern unit served working functions. Around the fourteenth century this layout was changed. The southern wing burned and a new building was raised for dwelling purposes alone and the northern wing was replaced by small outbuildings. Contemporary with the new southern wing, or perhaps not until after it was burnt in the middle of the fourteenth century, a large main building with both residential and economic areas was constructed. This was associated with several

successive outhouses. With this new main building in the farmstead, the roofed area of the farm was doubled, and the area of the farmyard was extended towards to the north. Could this be the first archaeologically discovered specimen of the fourteenth-century development known from the Land Books from the manorial/smallholding system to the establishment of equal-sized copyhold farms? The layout of the farm in the seventeenth and eighteenth centuries is less clear, but this can be remedied by written sources and cartographic evidence.

Translated by John Hines

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REFERENCES

Christensen, C.A. 1963-66: Ændringer i landsbyens økonomiske og sociale struktur i det 14. og 15. århundrede. *Historisk Tidsskrift* 12 rk. 1. 1964 (1963-66), 257-349

- (ed.) 1956: *Roskildekirkens jordebøger og regnskaber.* Danmarks middelalderlige Regnskaber 3. rk., bd. 1

Felgenhauer-Schmiedt, Sabine 1993: *Die Sachkultur des Mittelalters im Lichte der archäologischen Funde*, Europäische Hochschulschriften 42.

Frandsen, Karl-Erik 1983: *Vang og tægt. Studier over dyrkningssystemer og agrarstruktur i Danmarks landsbyer 1682-83.* Esbjerg.

- 1989: *Tårnby Landsby - historie og bygningsregistrant.* Kastrup.

Hoff, Annette & Jens Jeppesen: Todderup. En udgravet torpbebyggelse og torperne historisk belyst. *Kuml* 1991-92 (1994), 165-188.

Jeppesen, Torben Grøngaard 1982: Aastrup II - to sulehuse fra middelalder og renæssance. *Fynske Minder* 1981 (1982), 59-71.

- 1983: Fynske gårdundersøgelser - med udblik til resten af landet. In H. Thrane & T.G. Jeppesen (eds.): *Gårdens udvikling fra jernalder til nyere tid.* Beretning fra 7. Odensesymposium 28-30 april 1982. Skrifter fra Historisk Institut, Odense Universitet 11, 162-180. Odense.

Kristiansen, Mette Svart, Ditlev L.Dall Mahler, Thomas Roland & Eliza Fonnesbech-Sandberg 1994: *Udgravningen ved Tårnby Torv. Foreløbig rapport 1994. Status og sammenfatning.* Med bidrag fra Inge Bødker Enghoff: Rapport over analyse af fiskeknoglermateriale fra Tårnby Torv, 1993, SØL 457, David Robinson: Status over arkæobotaniske analyser af materialet fra Tårnby, Pia Brandsnes: Formidlingsrapport. Ed. Ditlev L. Dall Mahler. Københavns Amtsmuseumsråd.

Kroman, Erik (ed) 1942: *Valdemars Sjællandske lov.* Danmarks gamle landskabslove med kirkelovene bd. 7, København

Liebgott, Niels-Knud 1979: *Stakhaven. Arkæologiske undersøgelser i senmiddelalderens Dragør.* Nationalmuseets skrifter. Arkæologisk-historisk række XIX. København.

Mahler, Ditlev L. Dall 1994: Stabilitet - Labilitet. Tanker om den middelalderlige landsby: Tårnby. *Hikuin* 1994, 85-98.

Mejdahl, Ulla 1987: Poghøj - et tidligt middelalderligt gårdsanlæg. *Meta* 1987/1-2, 31-37.

Nielsen Oluf (ed.) 1872: *Kjøbenhavns Diplomatarium* bd. 1, København.

Porsmose, Erland 1991: Landsbyen i renæssancearkæologien. *Hikuin* 18, 1990 (1991), 191-196.

Rasmussen, Ulla Fraes 1990: Klemmenstrup - en udgravning af en middelaldergård. *Køge Museum* 1989 (1990), 37-54.

Siemen, Palle 1991: Middelalder i Tjæreborg og Allerup. *Mark og Montre* 26, 74 - 83.

Steensberg, Axel 1952: *Bondehuse og vandmøller i Danmark gennem 2000 år.* København.

- 1986: *Hal og gård i Hejninge: En arkæologisk undersøgelse af to sjællandske gårdtomter.* Det kongelige danske videnskabernes selskab. Historisk-Filosofiske skrifter 11. 1986.

Steensberg, Axel & J.L. Østergaard Christensen 1974: *St. Valby. Historisk arkæologisk undersøgelse af en nedlagt landsby på Sjælland bd.I-III.* Det Kongelige Videnskabernes Selskab. Historisk-Filosofiske Skrifter 8.

Sterum, Niels 1976: Tangen. En sydvestjysk gårdtomt fra senmiddelalder og renæssance. *Mark og Montre* 12, 53-61.

Weibull, Lauritz (ed.) 1963: *Diplomatarium Danicum*, I. rk., bd. 2, København