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From a port for traders to a town of merchants: exploring the topography, activities and dynamics of early medieval Copenhagen

Hanna Dahlström[a], Bjørn Poulsen[a,b] and Jesper Olsen [a,c]

[a]Centre for Urban Network Evolutions (UrbNet), Aarhus University, Højbjerg, Denmark; [b]School of Culture and Society, Department of History, Aarhus University, Aarhus, Denmark; [c]Department of Physics and Astronomy, Aarhus University, Aarhus, Denmark

ABSTRACT

Copenhagen's earliest history has long been shrouded in uncertainties. This is mainly due to insufficient source material. Basic questions – how old is the town, how did it originate, and where was the oldest settlement situated? – are still under discussion, as are questions regarding specific features of the early medieval town. Was Absalon's twelfth-century castle preceded by an earlier one? What does a centrally placed, early medieval horseshoe-shaped enclosure surrounded by a massive ditch represent? Using archaeological results from recent major excavations, combined with Bayesian modelling of new 14C dates from the two early cemeteries of Sankt Clemens and Rådhuspladsen, older archaeological information and the medieval written sources on Copenhagen are revisited to form a new interpretation of the early development of the town. Three phases of topographical development from the eleventh to the early thirteenth century are recognised. The changes tell of a dynamic first two hundred years of the town's history and of its changing role in Danish society. The article explores the people, activities and networks that lie behind the outstanding development from the small early settlement of the eleventh century to the flourishing merchant town of the thirteenth century.

Introduction

As the capital of Denmark from the fifteenth century onwards, Copenhagen's importance in international trade networks is well known, and evidence of the metropolitan lifestyles of its elites is plentiful (Riis 1994, p. 73ff). It is also known from written sources to have been an important medieval merchant town at this time, with a strong role in the Baltic trade and closely connected to German towns. The early phases of the town are, however, much less well known. It has long been evident that there was some kind of activity in Copenhagen from the eleventh century and onwards, but the location, scale and functions of the settlement have been debated for just as long. It is certainly problematic that very few written sources exist from the period before the mid-thirteenth century, and the archaeological information from the medieval period has until recently been quite meagre and fragmentary.

The results of the Metro Cityring excavations from 2009 onwards, together with other excavations

undertaken in central Copenhagen since 2008, have vastly improved the archaeological source situation. The excavation at Rådhuspladsen (see Figure 1) in particular has yielded new information about fundamental aspects of the early town: its size and extent, its church topography, the development of the town fortifications, and the types of activities taking place within the town.

Utilising the new and contextually well-documented archaeological source materials, including Bayesian modelling of new AMS dates taken together with information from the documentary sources, we discuss in this paper what it was that made this small, seemingly anonymous early settlement into one of the most important towns in Denmark. Who and what were the driving forces in Copenhagen in the eleventh and twelfth centuries? With the new material at our disposal, we hope to present a nuanced story about some of the people, activities and networks that paved the way for the prosperous high and late medieval town of Copenhagen.
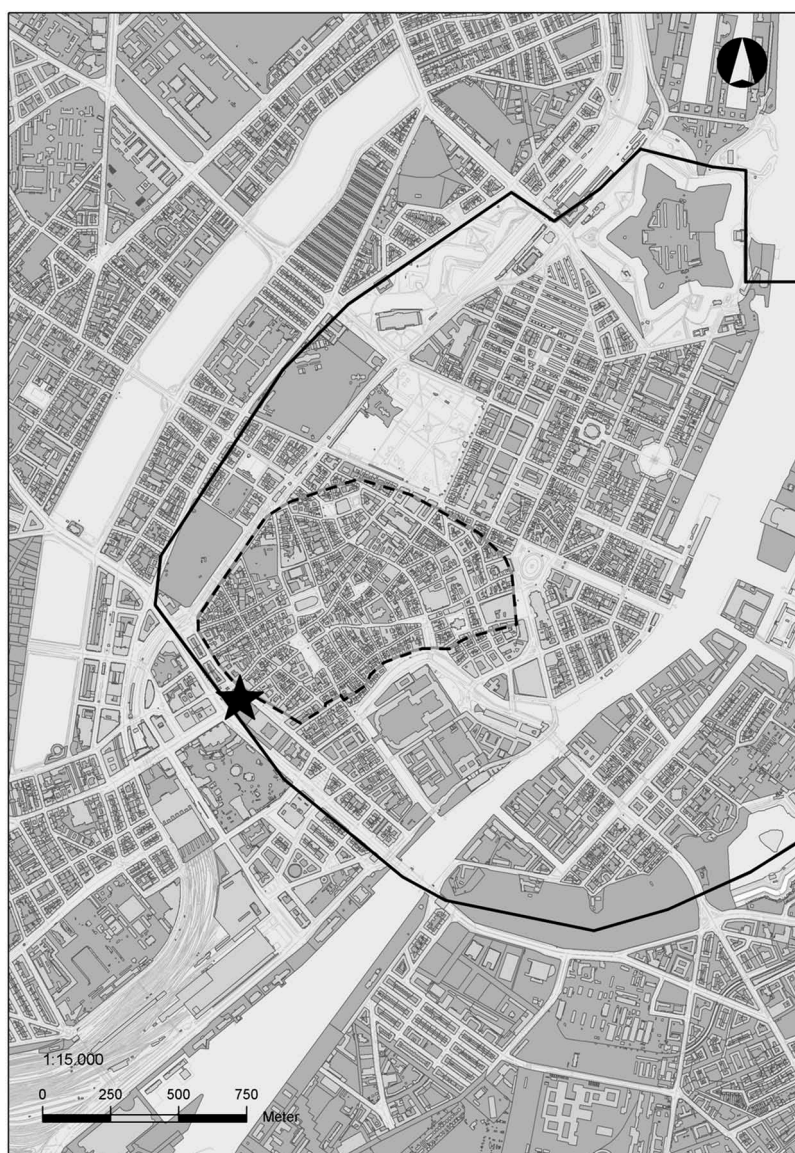
Figure 1. Modern Copenhagen showing the late medieval extent of the town (with a dashed line) together with the seventeenth-century extent (with a solid line). Placement of the excavation at Rådhuspladsen (the Town Hall Square), yielding important information about the early phases of Copenhagen, is marked with a star. After Lyne and Dahlström (2015). Figure has been reproduced with permission from Museum of Copenhagen.

A note of clarification: the term 'early medieval' refers to the Scandinavian use of the concept, namely c. 1050–c. 1250.

The written sources

What's in a name?

The written sources speaking of early medieval Copenhagen are few and, as so often, were written down some years after the period or events referred to. During its first two hundred years, the town is named either 'Købmannahafn' (first documented 1253; DD 2. ser., vol. 1., no. 105, 113) or variations on this name (which means 'the merchants' port'), or simply as 'Hafn' (port, from Old Norse 'höfn').

The first occurrence of the name is in the *Knýtlingasaga*, in connection with an episode in the year 1043 when King Sven Estridsen was attacked outside Höfn on Zealand. The text of the *Knýtlingasaga* was written down in the thirteenth century, and its reference to Havn has often been seen as secondary, particularly as this information was for a long time not corroborated by any other eleventh-century archaeological or historical source (Ægidius 1977, p. 37f).

The oldest source in which the town of Copenhagen is mentioned is a charter from Pope Urban, written in 1186, where it is termed 'Hafn' (DD 1. ser., vol. 3, no. 137). This is the famous letter in which the Pope states that Bishop Absalon has been given the castle ('castrum de Hafn') by the King (king Valdemar I), together with the town ('villa') and a number of manors in the vicinity of the town (DD 1. ser., vol. 3, no. 137). We shall return to this charter later.

The royal gift of Hafn to Absalon is commonly believed to have taken place in the middle of the twelfth century, perhaps in the year 1158. This is based on descriptions in the *Gesta Danorum* (History of the Danes) by the chronicler Saxo Grammaticus, writing around 1200. His Latin text describes Copenhagen as 'vicus qui mercatorum portus nominatur' (the town which is called the merchants' port/harbour: Saxo 2005, p. 340).

The appellative 'havn' (harbour/port) seems quite logical and the addition of 'købmand' (merchant) in front identifies and perhaps separates it from other 'havns' on the Zealand coast, including the documented settlement of Skåningehavn (Skaningæhafn, now Kalvehave) in South Zealand (Kristensen and Poulsen 2016, p. 200). The two parts of the name Købmannahafn point to the two aspects that probably characterised the early settlement: its coastal location, with its function as a port, and the presence of merchants, which means it was a site for trade. The first part of the name 'København' – 'køb' – can be seen in the same context as the contemporary and well-known place name, 'köping'. A number of 'köpingar' exist in the eastern Danish province of

Figure 2. The region of Zealand and western Scania, including some of the small early medieval trading sites and towns mentioned in the text. Ill: Ea Rasmussen, Moesgaard Museum and Ann-Lisa Pedersen.

Scania, across the Øresund in western Sweden: one in Halland, one in Blekinge, with the best known being Löddeköpinge on the west coast (see Figure 2; Svanberg and Söderberg 2000). These are distributed along the coast but, unlike Købmannahafn, not directly *on* the coast. It seems that these 'köping' trading places functioned mainly as local and regional trading centres, even if their function is not fully clear (Svanberg and Söderberg 2000). The word 'köping' is believed to stem from the Old English 'ceaping' or 'chipping' and is best known from the Norwegian Viking town Kaupang, which has the same etymological origin (Söderberg *et al.* 2009, p. 191, Sørensen 2017). A direct parallel to 'Køben' is, for instance, the Jutlandic name 'Københoved' on the river Kongeåen. Such place names attesting to trade seem mostly to belong to a phase preceding the near-monopolisation of trade to towns in the medieval period, that is, before 1200. They can consequently be seen as elements of broad regional trade structures predating the medieval period (Nielsen 2014, p. 198ff). We suggest that the early settlement in Copenhagen should be understood as a local trading centre, being one of many such small commercial places in the regional landscape. What historically separates Købmannahafn from most other local trading centres was that it had the luck, or the qualities, that enabled it to succeed as a town as well.

The name implies a *port* in which *trade* was conducted, perhaps already in the Viking Age. This raises several central questions: What was traded? Who were the traders? How was the trade organised and protected? The fact that Copenhagen does not stand out in the archaeological record as a particularly important centre for trade during this period makes the name somewhat puzzling, but it is nevertheless an important piece of information to be taken into account within the framework of this article.

Bishop Absalon, the castle and the town

Bishop Absalon, a member of the important Hvide family, is traditionally seen as the founder of Copenhagen. From 1158 he was Bishop of Roskilde, and from 1177/78 Archbishop of Lund until his death around 1201 at 73 years of age. The papal charter of 1186 mentioned above, together with the prominent role assigned to him in Saxo's *Gesta Danorum*, gave the Bishop an almost mythical role in the nation-building project that was led by patriotic nineteenth- and early twentieth-century historical researchers (Olrik 1908–9, Rerup *et al.* 1996). Even if Absalon's role was toned down considerably in later research, he is still regarded as having a central role in the town's early history (Fabricius 1999, El-Sharnouby and Høst-Madsen 2008). It is evident that Absalon's interest in Copenhagen gave the town a push forward and led, among other things, to the undertaking of large construction projects. The most important of these were the castle and the Church of Our Lady (Vor Frue Kirke). Absalon was also probably a driving force behind the large fortification project which began construction in the early thirteenth century (see the following).

The main discussion points arising from the written sources relating to Absalon and the origin of Copenhagen revolve around two questions. First, what can be said about the status of Copenhagen at this point? Was it a village or a town? And second, did Absalon build the first castle, or had a forerunner already been established? The first point is discussed throughout the present paper, although a comment on the words used in the written sources to describe Copenhagen may be in order at this point. We should not be confused by the term 'villa' as used in connection with 'Hafn' in the papal charter of 1186. As shown by Hans Andersson, 'villa' is a normal Latin term used for a smaller town in Denmark before c. 1250 (Anderson 1971). On the second point, there is a genuine question over the existence of an earlier castle. On the small islet of Strandholmen (beach islet), a castle or stronghold is known from archaeological evidence to have been erected in the mid-to-late-twelfth century (Stiesdal 1975, Figure 9). Saxo Grammaticus writes in *Gesta Danorum* that Archbishop Absalon built a new castle ('novi castelli') in the 'port of the merchants' in 1167. In the above-mentioned papal charter of 1186, Absalon is said to have previously been given 'Castrum de Hafn', together with the town and a number of manors surrounding the settlement (DD 1. ser., vol. 3, no. 137). The wordings in the sources have given rise to speculation as to whether Absalon built the first (in other words, a new) castle, or whether he built a new castle replacing an *older* castle. There has also been speculation as to whether 'castrum' refers to a castle

or a fortified town (Fabricius 1999, p. 154ff). As will be argued in the present article, we do not consider it likely that the town was fortified at this point. We can also conclude that the archaeological information about Absalon's castle does not point to an older castle on the same location.

The castle at Copenhagen should be seen in the light of expanding castle-building activity in Denmark in the twelfth century. A Zealandic example is Søborg in North Zealand, where the Danish king took over the Bishop of Roskilde's castle in 1161 (Pavón 2013). The Copenhagen castle can also be seen in the context of the castle of Skeingeborg, in the northern part of the eastern Danish province of Scania. This was probably built by Bishop Absalon in the same period as his castle at Copenhagen, as a control point in the iron-distribution network of Scania, and with some resemblance to the castle at Copenhagen (Ödman 2009,
p. 19ff). First and foremost, however, the castle at Copenhagen should be seen, as has often been stressed, as a part of the Danish crown's coastal defence against Slavonic attackers, a vast building endeavour taking place in the reign of Valdemar the Great (1157–82) and including the castles of Vordingborg, Nyborg, Kalundborg and Sprogø (Engberg and Frandsen 2011, Kristensen and Poulsen 2016, p. 138f). It is interesting however that, unlike most of these towns with prominent castles, the term 'castle' (borg) is not reflected in the town's name. This should be seen as an indication of the importance of Copenhagen's function as a trading centre before the construction of the castle.

Despite large-scale excavations in the early twentieth century, the only solid information about the original castle is that it had a ring-shaped wall built of lime stone blocks. The stronghold had a circumference of 53 m, only partly preserved. It had been added to in several phases.

Even if it is difficult to conclude much about the castle from its appearance, the mere fact that the small town at Havn was one of the very few Danish towns with a castle to defend it says something about its importance in the Danish realm in the mid-twelfth century. What was it about Copenhagen in this period that made the elite of society claim this place as theirs, among other things by taking on the massive work of building a castle?

Before 1186, Absalon had transferred Copenhagen, with its castle, to the Bishopric of Roskilde, making the once-personal gift permanent. Absalon made sure that the gift was confirmed by the Pope on several occasions (in 1186, 1192, 1193 and 1198). We know from different sources that Absalon continued to use Copenhagen castle (DD 1. ser., vol. 3, no. 253). According to one charter of 1199, Absalon donated land at his castle to his family's 'Hauskloster' Sorø. The transaction was witnessed by his brother Esbern Snare, builder of the castle of Kalundborg, as well as a fair number of other members of the Hvide family (DD 1. ser., vol. 3, no. 253).

Churches in Havn

The earliest written information about a church in Copenhagen is two letters written between 1192 and 1201, mentioning 'the church' in 'Haffn' (DD 1. ser., vol. 3 no. 174, 180). They do not state when the church was built or what its name was. The wording of the letters, however, indicates that it had been in use for some time (DK Vol. 6 1987, p. 13). The words '*the* church' have been taken to indicate as a matter of fact that Copenhagen in its earliest phase had only one church (ibid.). As we shall see later on, this story requires revision.

In the later of the two documents, Absalon approves the payment by the parishioners ('comparrochianis') of the church in Haffn of some of their tax for the ongoing construction of the Church of Our Lady. After years of speculation among scholars, some kind of consensus has been reached that the original church referred to in these letters is a church of Sankt Clemens (Saint Clement). Saint Clemens in Copenhagen is first mentioned by name in 1304 (Nielsen 1879, KD 4, no. 3). Later documents indicate that the church was poor, and after the Reformation, it was demolished (Ramsing 1940, vol. 2, p. 29). Saint Clemens was the patron saint of sailors, which emphasises the town's role as a port. These churches were often connected to royal interests in the early medieval period; in the case of Copenhagen, this points to a royal presence there before Havn was given to Absalon in 1158 (Crawford 2006, p. 235ff). The arguments for the

oldest church being the church of Sankt Clemens can therefore be summed up as follows: we know from written documents that the Church of Our Lady was not the first church here, and the church of Sankt Clemens is mentioned in 1304, then later described as poor (and may therefore have been the one obliged to pay for the construction of the Church of Our Lady). Moreover, churches were frequently devoted to Sankt Clemens in the early medieval period, which would concur with its being the oldest in the town.

A number of churches therefore existed in thirteenth-century Copenhagen (Figure 3). The building

of the large and stately Church of Our Lady was most likely begun as early as the late twelfth century during the time of Bishop Absalon. This church was to become the new principal church of Copenhagen. In 1209, it was officially consecrated and became a collegial church connected to Roskilde Cathedral (Kornerup 1929–30). In this connection, a cathedral school was opened (the origin of the present-day Metropolitanskole). The Church of Our Lady was situated centrally in the thirteenth century town on the road leading into the town centre if one was travelling from the north. It was built as a Romanesque limestone church; after a number of fires, it was rebuilt in 1316 as a Gothic brick church, very
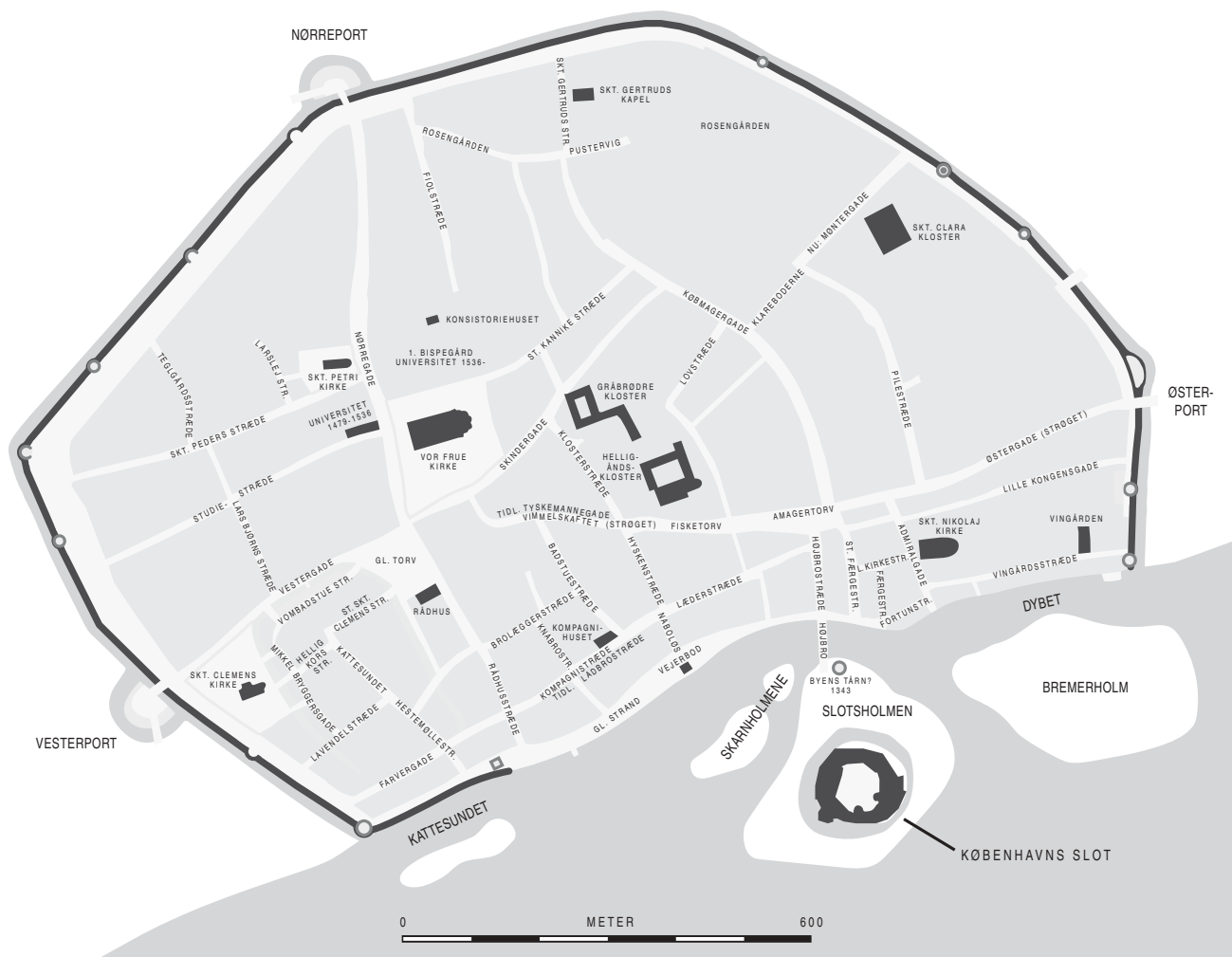
Figure 3. Reconstruction of late medieval Copenhagen with its fortifications. After Fabricius (1999, p. 190) and Kristensen and Poulsen (2016, p. 226). Figure has been reproduced with permission from the authors.

similar indeed to the Saint Petri church of Malmö (DK 1, Fabricius 1999, p. 212).

Soon, another church was built in the eastern part of town. The Church of Saint Nikolai, close to the present-day Kongens Nytorv and practically on the seashore, is mentioned for the first time in 1261 (DD 2. ser., vol. 1, no. 332). It was built as a Romanesque church, then later remodelled and enlarged to become a church of late Gothic style (DK 1, p. 475). Saint Nikolai was a saint of seafaring, which seems appropriate in view of the church's location. As with the Sankt Clemens church, this further underlines the importance of the sea for Copenhagen's existence. The placement of the Church of Saint Nikolai has been thought to indicate the existence of an eastern manorial property in Copenhagen, supposedly located around the site of the present-day Magasin du Nord and Kongens Nytorv (see Figure 3 (marked 'Østerport'), 9 and 25b; (Ramsing 1940, vol. 3, p. 59, Stiesdal 1975, p. 2). Such a manor is mentioned a number of times in the written sources, although whether it goes back to the early or high medieval period is not known.

A church of Sankt Peder (Saint Peter) is first mentioned in a will of 1304 (DD 2. ser., vol. 5, no. 344), but was probably built in the thirteenth century. It functioned as a parish church for the north-west part of town and also for the villagers of Serridslev, located a few kilometres north of the town (see Figure 8). There is no information concerning how the original church of Sankt Peder looked.

By the end of the thirteenth century, then, four parish churches are known in Copenhagen: Sankt Clemens, the Church of Our Lady, Sankt Nikolai, and Sankt Peder. This differs markedly from towns such as Malmö, situated across the Øresund strait, which became a town in the thirteenth century (Reisnert 2006, p. 66ff). The presence of several churches seems to be common in numerous Danish towns prior to c. 1150–1200, apparently reflecting a situation in which the parish structure was not fixed, with churches sometimes built on private initiatives (so-called proprietary churches; Nyborg 1979, 2004).

The thirteenth century was also a period when other clerical institutions were established in Copenhagen. In 1221 a brother of the Dominican Order met with Archbishop Anders Sunesen of Lund in 'Copendhafn' (DD 1. ser., vol. 5, no. 196), but it was the Franciscans who settled in Copenhagen. Around 1238 the rich widow Duchess Ingerd of Regenstein founded a Franciscan convent here (Gallén 1959, Kjersgaard 1980, p. 58). She granted them a property in central Copenhagen on the site of the present-day square of Gråbrødre Torv. Little, however, is known of their foundation. The semi-monastic beguines were also represented in Copenhagen. A member of this typical urban movement, which had its centre in the Rhine area and the Netherlands, is mentioned in 1274 when a woman in Dortmund, Germany, gave a plot of land to the house of the beguines in Copenhagen, to feed the virgins who lived there (DD 2. ser., vol. 2, no. 228).

The leprosy hospital – Jørgen's hospital (the hospital of Saint George, not on map), with its own chapel – is mentioned in a will of 1261 and is believed to have been established shortly before that date. The hospital is said to have had a forerunner, devoted to Sankt Olav (DD 2. ser., vol. 2, no. 252). On pictorial material of the sixteenth century it is placed some distance west of the town, but its location in the medieval period is not known (DK 6, p. 25ff). It is quite possible that the Sankt Olav church/chapel goes back to the twelfth century, which would add this foundation to the earliest church topography of Copenhagen.

Helligåndshuset (the Hospital of the Holy Spirit, 'domus sancti spiritus Hafnis'; later in the medieval period known as Helligåndskloster; see Figure 3) was established in 1296 by Bishop Jens Krag in a central location in the town. Nothing is known, however, about its earlier buildings (Fabricius 1999, DK 1, p. 625ff).

The written accounts of the medieval churches of Copenhagen are not very informative and leave quite a few questions unanswered. This is especially evident in the light of the recent excavations at Rådhuspladsen, which will be discussed below. Here the remains of an, until now, unknown cemetery, most likely belonging to a church of the early medieval period, have come to light. Where does this church belong in the history of the town churches, and what does it tell us about the early development of Havn? And consequently – what else is not mentioned in the historical sources?

Large-scale fortifications

During the thirteenth century, a massive boundary and defence structure was seemingly constructed in

Copenhagen (see Figure 3; Kristensen and Poulsen 2016, p. 216f) – or at least started upon, as we shall see below. In the case of some Danish towns, there is discussion of whether the primary function of their fortifications was defensive or more an administrative and judicial marking, but the structure surrounding Copenhagen was so extensive that it was certainly meant as a defence. A defence also proved to be very much needed when Copenhagen was stormed in 1249 and 1368, both times by the Hanseatic town of Lübeck (DD 2. Ser., vol. 1, no. 34, 42, DD 2. ser., vol. 2, no. 52). Its location, easily accessible from the sea but at the same time vulnerable to attack, also by pirates, made fortifications necessary.

The fortifications are mentioned in the first town law of 1254 and 1294, where it is stated that the law is in force within the walls and moats ('infra muros et fossata') of the town (Kroman 1951-61, vol. 3, p. 3, § 1). The law of 1254 also speaks of the town's fences ('infra septa'; Kroman 1951-61, vol. 3, p. 5, § 7). Later in the thirteenth century the fortifications are described with several different wordings, so the type of construction material used for the fortification and its appearance cannot with certainty be concluded from the written sources (Kristiansen 1999a, p. 166). There are, however, indications that it was not uniform. A house in the parish of Sankt Nikolai situated near the walls ('juxta murum') is mentioned in a letter of 1298 (DD 2. ser, vol. 4, no. 284). Five years before, in 1293, a townsman of Copenhagen is heavily fined for breaking through the 'fence' of the town at night (DD 3. ser. vol. 4, no. 96).

Together with the castle on Slotsholmen, the fortifications surrounding the town should be seen as evidence of the willingness to invest in and to protect Copenhagen. The dimensions of the construction, covering 70 ha, are comparable to the fortifications of Lund and Roskilde (84 and 73 ha, respectively: Kristensen and Poulsen 2016, p. 227). The large scale also points to plans for future expansion, since much of the northern and north-west parts were built at this time (Fabricius 1999). Perhaps we could even see the generous scale of the fortifications as also including some space for grazing and cultivating, making the town inhabitants self-sufficient in the case of a siege.

Even if the fortification project is mentioned in 1254, it cannot be concluded that it was finished by then. The source of 1254 speaks of the walls and moats in a judicial sense as the geographical *boundary* of where the laws ruled. This could mean that it was enough to know where the boundary was, without the wall and moat physically being there. Some passages in the written sources describing the process of construction could be interpreted as evidence of potential problems. In the 1254 town law, for instance, it is stated that no individual may prevent the execution of the common good, such as the construction of moats and roads, and that if the town requires stone, iron or chalk for its constructions from a townsman, no one may refuse it (Kroman 1951-61, vol. 3, p. 3, §15). A letter from the Bishop in 1289 thanks the townsmen of Copenhagen for their good will in fortifying their town and in compensation gives them a tax relief (DD 2. ser., vol. 3, no. 374). These sources could be seen as indications of internal conflicts between groups in the community with different interests in whether and where the fortifications were to be built. From the written sources, it appears that the town council (Danish: byråd) and the Lord of the town was the driving force behind the construction of the walls. But perhaps not everyone with influence was happy about all aspects of the building of the fortification – for instance, where it was to be built. Or perhaps different groups in the community or different individuals were responsible for building different parts of the defences. In this connection, the question of building materials for the fortifications could be of interest. In an official survey of the town of 1496, listing the properties and infrastructure of the town, the word 'mur' (wall) is chosen eleven times to describe the defences in the stretch from Nørreport to Østerport, while in the western part only 'planker' (planks, or fences) are mentioned (Kristiansen 1999a, p. 166, Nielsen 1872, KD 1, p. 234-246).

Thirteenth-century Copenhagen: a large and well-connected town

When Bishop Absalon died in 1201, lordship over Copenhagen was transferred to the diocese of Roskilde; but Copenhagen remained contested for centuries because the Danish kings desired so strongly to possess the town. Evidently Copenhagen was so important that lordship over it was in dispute for centuries (Kjersgaard 1980, p. 63–82, 118–119).

Figure 4. Denmark and Scania, Sweden. The map shows the location of Copenhagen in medieval Denmark. Ill: Ea Rasmussen, Moesgaard Museum and Ann-Lisa Pedersen.

Copenhagen was no small town in the thirteenth century (see Figure 4). Its place in the town hierarchy of Zealand can be assessed from the so-called 'town list', dated to c. 1241. This tax list notes an exact tax amount for each town in Zealand, Lolland-Falster and Møn (Kong Valdemars Jordebog, p. 83, Ulsig and Sørensen 1981). The list contains information about 19 towns, of which the ones giving the highest yield are Roskilde (90 marks), Næstved (40 marks), Kalundborg (33 marks), and Copenhagen (28 marks). Below these, we find a group of nine towns

assessed at giving between 5 and 18 marks. It is possible to say that in the mid-thirteenth-century Copenhagen constituted a prosperous town, the fourth largest on the island of Zealand. The prosperity is further supported by the fact that when the wealthy Duchess Ingerd of Regenstein decided to found Franciscan convents, it was precisely these large towns to which she turned.

Thirteenth-century Copenhagen was a well-regulated society. From its town rulers (Danish, byherrer), the Roskilde bishops, it received town laws in 1254 and

1294 (Kroman 1951-61, vol. 3, p. 4f). The town functioned as a bridgehead for traffic crossing from west Denmark to Scania. A fourteenth-century itinerary thus describes a route from the towns of Schleswig and Ribe, across Funen, to Zealand and on to Roskilde-Copenhagen. From Copenhagen the road goes either to Skanør or Malmö, then north via Helsingborg (Paravicini 2000).

Copenhagen was supplied by its fertile hinterland, with which it maintained intense contact. Just one illustration of this is a court case of 1293, which mentions meat imported from the nearby town of Slangerup into Copenhagen (DD 2 ser., vol. 4, no. 95). In 1230, chalk for the building works of the town was brought in from the small island of Saltholm just outside Copenhagen (DD 1. ser., vol. 6, no. 113, 2. ser., vol. 2, no. 396). The town also benefited from the upcoming international markets and fishing centres of Skanør and Falsterbo, and the town law of 1254 notes that the townsmen of Copenhagen are relieved of levies on the Skanør market (Kroman 1951-61, vol. 3, p. 3, § 17). Generally, Copenhagen benefited from the sea trade and communication in the Øresund. In 1275, the ruler of Copenhagen, Bishop Peter Bang, permitted free passage without customs duties between Copenhagen and Malmö (DD 2. ser., vol. 2, no. 252). Ferrying is mentioned in the 1254 town law of Copenhagen, which states that the town is under obligation at any time to ship the town lord, the Bishop of Roskilde, with 12 men to Scania (Kroman 1951-61, vol. 3, no. 1, § 2). That there was a traffic of small boats between the coasts of Zealand and the increasingly prosperous town is shown by a will of 1261 in which the aristocrat Peder Olufsen, owner of the manor of Karise (Stevns), donates all his boats lying at Copenhagen to the Sankt Nicolai Church of that town (DD 2. ser., vol. 1, no. 332). It is tempting to see behind a notice of this kind supplies of grain coming from South Zealand.

Traces of long-distance trade can also be discerned, along with older Nordic trade patterns involving connections to Norway and Iceland, as seen when c. 1242 the Icelandic poet Játgeirr Torfason is said to have been killed by his family in Copenhagen (Mundal 2009). In 1251, we have evidence of English trade when English merchants robbed of their goods in Copenhagen are compensated by Lübeck townsmen who two years earlier had taken part in the plundering of the town (DD 2. ser., vol. 1, no. 43). The connections to England were seemingly not interrupted: in 1329 the Newcastle merchant Robert Musgrave was robbed of his ship and cargo in the harbour of Copenhagen (DD 2. ser., vol. 10, no. 109, 110).

The most important trade partners of Copenhagen were, however, Germans. In 1253, we hear of Bertel 'of Copenhagen' in Dortmund (DD 2. ser., vol. 1, no. 102). Most connections, however, were leading to the emerging German towns on the southern shore of the Baltic. Lübeck certainly interacted with Copenhagen through trade, and imported Lübeck beer (traveøl) was widely consumed by the Copenhageners (DD 2. ser., vol. 3, no. 5). We must also assume that people from Lübeck came to fish in the herring fisheries at Copenhagen before Dragør, at Amager, became an international herring market around 1340 (Jahnke 2000, p. 135). Among the other German sea towns, Stralsund interacted a great deal with Copenhagen. Townsmen from Copenhagen are, for instance, mentioned in Stralsund in 1280, 1302 and 1305 (Das älteste Stralsundische Stadtbuch, p. 41, 147, 173). Not surprisingly, there were also connections to Rostock and Greifswald. A number of thirteenth- and fourteenth-century court cases mention townsmen from these towns who have been murdered in Copenhagen (Mecklenburgisches Urkundenbuch, 3, 73, DD 2. ser., vol. 9, no. 109). In 1294 we hear that people from the territory of the German Order (probably from Gdansk) have been robbed in Copenhagen (Nielsen 1872, KD 1, no. 35, p. 60). Some Germans even settled in Copenhagen, such as the two townsmen of Wismar who in 1260 owned a house there (Techen 1912, p. 38). There are enough data to document that thirteenth-century Copenhagen was well integrated into the Baltic trade routes.

Copenhagen before Absalon: previous research

Early theories: 'Historikerfejden', Rosenkjær and Ramsing

From the written sources as well as from archaeology, there is no doubt that Copenhagen was flourishing in the thirteenth century. Historians and archaeologists have striven to throw light on the period before this. It was not until 1982, however, that systematic excavation was to get under way in Copenhagen. The first archaeologist employed at the City Museum was Axel Christophersen, who in 1986 took on the task of

summarising and critically assessing all previous theories of the origin of Copenhagen (Christophersen 1986, see below). His interpretation differed substantially from the prevailing theories. Despite – or perhaps because of – the meagre source material on early medieval Copenhagen, extensive theorising about the extent, date and character of the early settlement has been in progress since the late nineteenth century. The so-called 'Historikerfejden' (historians' feud) involved three scholars, each with his own view of where the earliest settlement was situated, which church was the first, and whether Havn had been a rural settlement or had principally been a fishing port. The debate was carried on in the 1870s and 1880s in the journals *Danske Samlinger, Historisk Tidsskrift* and *Aarbøger for Nordisk Oldkyndighed og Historie*. The theories advanced relied on the few written sources, combined with interpretations of ancient maps, place names and contemporary town topography (see Fabricius 1999, p. 45ff for an extensive summary of the theories).

In the first half of the twentieth century, the school teacher H. N. Rosenkjær and Major-General H. U. Ramsing were the two most important figures in research into the early history of Copenhagen. They made extensive documentations of cultural layers and geographical conditions in connection with the large-scale building demolitions that began in the old town in this period. They were the first to use archaeological information as a real basis for their interpretations. While Rosenkjær did pioneer work connecting archaeology with natural science, Ramsing made important contributions in combining archaeology with written sources. Ramsing eventually came up with a theory of the extent of the first town which, with variations, came to last for a long time. It was he who developed the concept Clemensstaden (see discussion below; Ramsing 1908).

Topography of the early town area

It has often been said that Copenhagen's natural topography was marshy and not suited to permanent settlement (El-Sharnouby and Høst-Madsen 2008, p. 148). Therefore, it would at an early stage have been an important task to fill in the areas close to the shore in order to make the site more habitable and stable. Evidence of these types of endeavours exists, among other places in Kompagnistræde (see Figure 3), and the adjacent Løngangstræde and

Lille Kirkestræde, where various measures were taken to stop water seeping into the settlement. These activities can be dated to around 1200 and after (Roesdahl 1971, p. 177ff). In the early twentieth century, geological observations were made in many places around the medieval town, principally by Rosenkjær and Ramsing, mapping the early medieval ground level in the respective areas (Ramsing 1940, vol. 1), thus enabling a reconstruction of the early medieval shoreline. The reconstructions were later modified so as to move the early shoreline one block to the north (Skaarup 1999b, Fabricius 1999, p. 75ff). It should be stated that these reconstructions are associated with many uncertainties, and that at this point there is insufficient data to make a detailed reconstruction. Detailed mapping with modern methods remains a vital task for current and future research into the history of the early town.

From the many observations conducted over the years, an approximate idea of the shoreline can nevertheless be obtained (see Figure 9). It is likely that the area along the shore which was between 0 and 1 m above sea level was seasonally flooded, and that it was these areas that were worked upon from no later than c. 1200. The earliest settlement should be seen as located at a higher level. As we shall see below, this fits with the new archaeological information, which indicates that the main settlement was situated in the western part of the town or even further west than the traditionally defined town area, where the ground was higher. It is also likely that the earliest town included small bodies of water such as ponds and wetland areas influencing the placement of streets and buildings. Ramsing's observations on the original ground level around town, combined with the evidence of maps dating from c. 1600, suggest there were several small islands immediately outside the western town area (see Figure 5; Ramsing 1910, p. 506ff, Fabricius 1999, p. 57ff).

'Clemensstaden' and the horseshoe-shaped ditch

The concept of Clemensstaden was first advanced by Ramsing in 1907. It refers to the area in which no bricks have been found in the cultural layers – the area between Vestergade, Gammeltorv/Nytorv, Farvergade, and Rådhuspladsen. Consequently, Ramsing pointed to this area as the extent of the oldest town settlement. Since the church of Sankt Clemens had just been discovered within this area, he named it Clemensstaden

Figure 5. Oldest known map of Copenhagen from c. 1580–1600. North is up. Original from the Royal Danish Library.

(the Clemens town). However, the dominant theory of the town's original extent in the second half of the twentieth century emerged from a series of observations of a ditch managed by Ramsing throughout his active years. Ramsing himself interpreted this ditch as a mill race (Ramsing 1940), but other researchers came to see it as a fortification surrounding the oldest settlement.

The ditch was encountered for the first time in 1900, and then on several occasions leading up to 1912 (see Figure 6). The ditch and fragments of an earthen wall had seemingly enclosed a 2.5 ha area lying between present-day Gammeltorv, Vestergade and Mikkel Bryggers Gade, with its southern edge facing the contemporary waterfront at present-day Farverstræde. In 1940, Ramsing presented the theory that the remains of the feature – a wide ditch (c. 8 m wide and 1.5–2 m deep) and a connected earthen wall (8 m wide and 1.5 m high) that he encountered at several locations within the area – were the fragments of a medieval mill race, connected to a mill pond located to the north (Ramsing 1940, vol. 3, p. 47). He observed that the ditch had been cut through older settlement remains, and that the oldest culture deposits inside the enclosure were without brick inclusions.

On the basis of these observations, he concluded that the mill race dated from the period of Absalon (i.e. before c. 1200), but that there had been some activity prior to the cutting of the ditch.

A reconstruction of the course of the ditch and the rampart was consequently made from these observations, and its shape was interpreted as being similar to a horse-shoe (Ramsing 1940). In the 1980s, two further excavations were conducted at locations through which the ditch was predicted to run. In at least one of these, in Vestergade 7, the ditch was seen (marked with 'I' on Figure 6; Skaarup 1988), in the other excavation in Frederiksberggade (marked with 'H' on Figure 6, it is more uncertain (Christophersen 1986, p. 30ff). Deposits which were AMS-dated to the second part of the eleventh century or the first half of the twelfth were seen, but their context was unclear, due to the small excavation area of 6 m^2 (see Table 1; Christophersen 1984).

In 1947, the theory was put forward that the construction could have functioned as the oldest fortification of the town, enclosing the oldest settlement (described in Fabricius 1999, p. 84). This interpretation became the dominant one as the years went by (Stiesdal
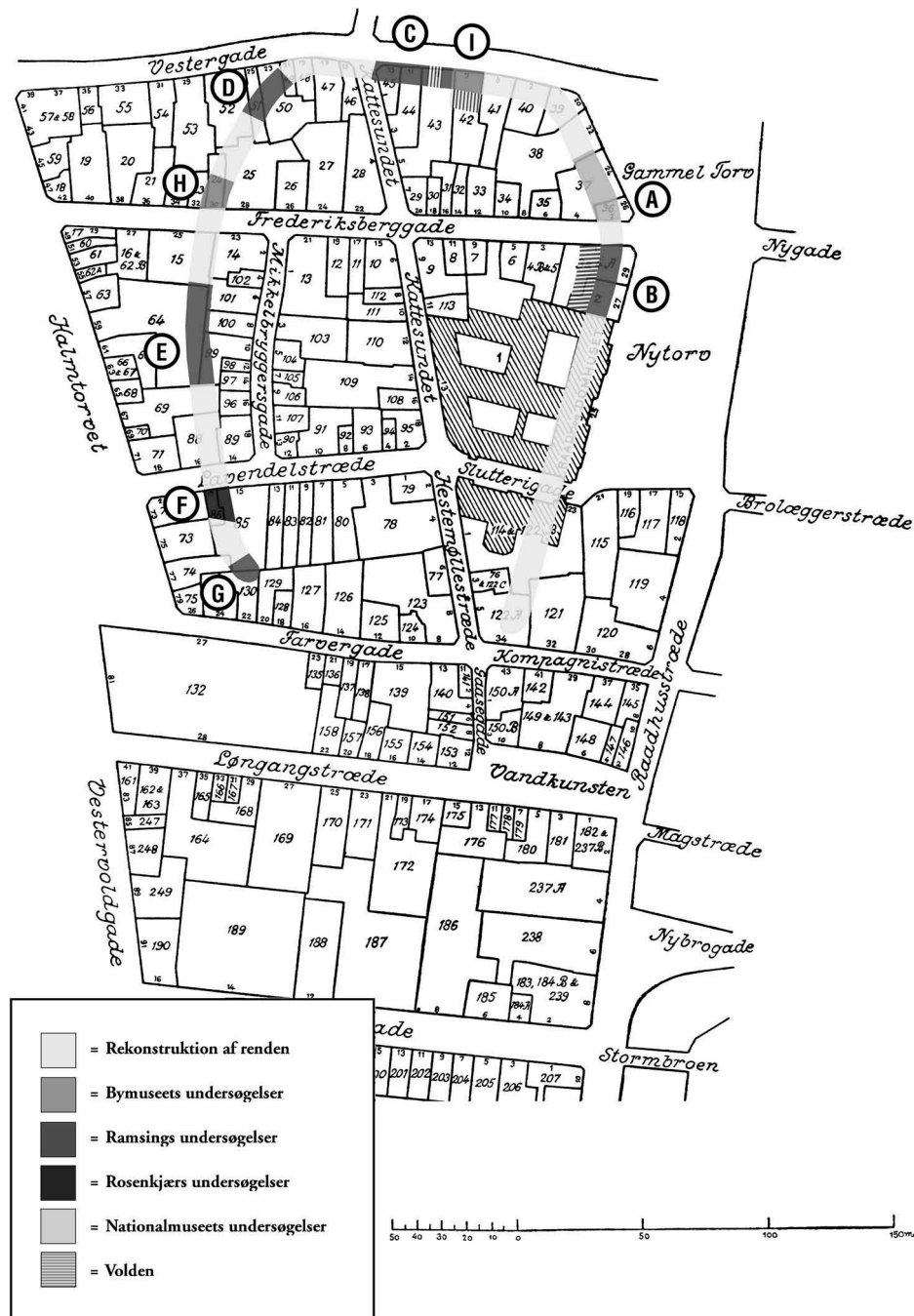
Figure 6. Reconstruction of the horseshoe-shaped ditch, interpreted as the extent of the earliest settlement. The actual sightings of the feature are marked (Danish 'renden' = 'the ditch', seen as light grey; "undersøgelser = 'excavations', seen as darker shades of grey). After Ramsing (1945). The placement of new excavations within the area, mentioned in the text, are marked with a star.

1975). The name 'Clemensstaden' had now come to mean the area within the enclosure. The church of Sankt Clemens came, in this model, to be situated outside the earliest town extent. In the late 1980s, archaeologist Bi Skaarup made new progress with her research concerning the function of the ditch. In 1987 an excavation was undertaken which dismissed the idea of a mill

race due to the discovery that there was no difference in height in the ditch, which would have made it impossible for water to run through it. Archaeobotanical analyses of material from the ditch sediments also showed that although the ditch had been a water-logged feature, the water had been still rather than running. This was seen as proof that the ditch had originally been

Table 1. AMS 14C dates mentioned in the text.

| Feature type and excavation id	Lab No.	14C year BP	Sigma 2 date	Dated material
Horseshoe shaped ditch? 1984, Frederiksberggade 30, AA 72	K-4543	890±50	1045–1220 AD (sigma 1)	Wood
Horseshoe shaped ditch? 1984, Frederiksberggade 30, AA 72	K-4544	930±50	1030–1180 AD	Animal bone, cattle
Amagertorv 7/Læderstræde 8, KBM 3111			1058–1156 AD	
Oldest ditch KGN 1999, KBM 1410/1910	KIA 6107	937±25	1029–1158 AD	Seed, unknown species
Coffin wood, RHP 2011, KBM 3827	KIA 44,988	1195±20	775–889 AD	Wood, unknown species*
Border ditch cemetery, RHP 2011, KBM 3827	LuS 11,074	920±40	1025–1210	Animal bone, pig
Bulwark KGN 2010, KBM 3829	LuS 9701	835±50	1045–1289 AD	Charcoal, Alder
Bulwark KGN 2010, KBM 3829	LuS 9702	775±50	1155–1295 AD	Charcoal, Alder
Rampart KGN 2010, KBM 3829	LuS 11,347	780±35	1190–1285 AD	Seed, barley
Moat RHP 2016, KBM 3827	LuS 12,015	680±35	1265 – 1395 AD	Bur-reed
Moat RHP 2016, KBM 3827	LuS 12,016	605±35	1290 – 1410 AD	Charcoal, Hazel
High med. building, 2nd floor, RHP 2012, KBM 3827	LuS 10,657	700±45	1220 – 1395 AD	Seed, Goosefoot
High med. building, 4th floor, RHP 2012, KBM 3827	LuS 10,639	645±50	1275–1405 AD	Seed, unknown
Clay lined pit KGN 2010, KBM 3829	LuS 11,364	890±35	1035–1220 AD	Animal bone, horse
Clay lined pit KGN 2010, KBM 3829	LuS 11,363	815±35	1160–1270 AD	Animal bone, sheep

a fortification enclosing the earliest town area (Skaarup 1988, p. 31).

A close dating of the ditch must still be seen as non-existent. We know that it cuts through the oldest settlement traces (see Figure 11), which broadly are dated to the late eleventh century/early twelfth century (Ramsing 1940, p. 81ff, Fabricius 1999, p. 179), and we know that the deposits covering the backfill of the ditch contain finds from before the fourteenth century (Skaarup 1999c, p. 94). AMS dates from the above-mentioned excavation at Frederiksberggade 30 in 1984, together with finds of Baltic Ware pottery, were found by Hoda

El-Sharnouby and Lene Høst-Madsen to place the establishment of the ditch and rampart to the later part of the eleventh century or to the first half of the twelfth . This was however based on the assumption that the features dated in the 1984 excavation were parts of the ditch, which it has been argued above are uncertain. This means that the existing dating information for the *construction* of the ditch extends from the late eleventh to the late twelfth century, whereas that for the *backfill* range extends from 1160 (ibid.) to the late thirteenth century. In order to reach plausible and more precise dates for the construction and the falling into disuse for
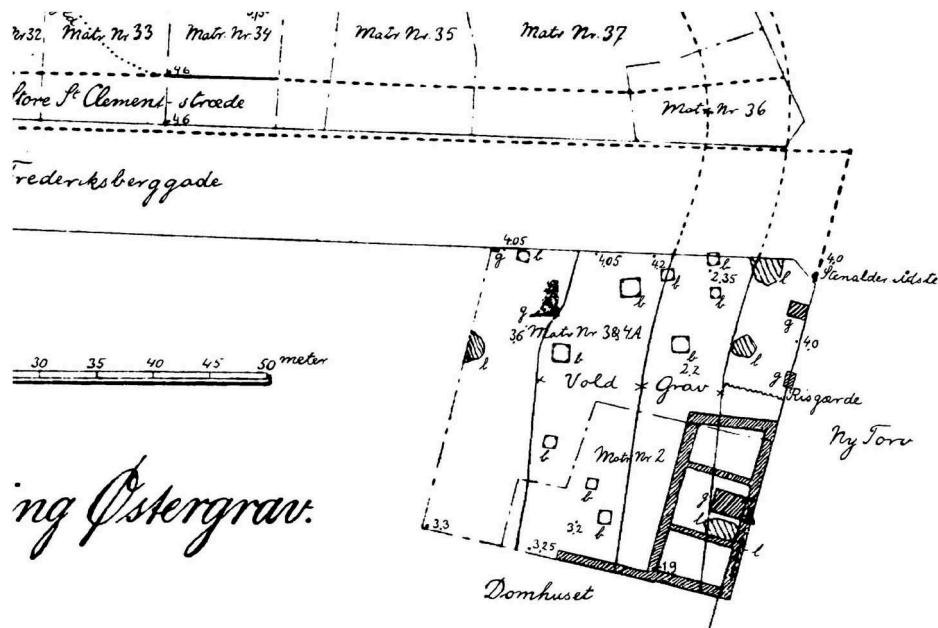
Figure 7. Part of drawing by Ramsing of the north-east corner of the area enclosed by the ditch. It shows remains of ditch (grav), rampart (vold), clay floors (g), wells (b) and pits (l) from the plot Frederiksberggade/Nytorv, excavated in 1909. The drawing shows features encountered below the ditch and rampart (after Ramsing 1909, p. 497; Figure 2).
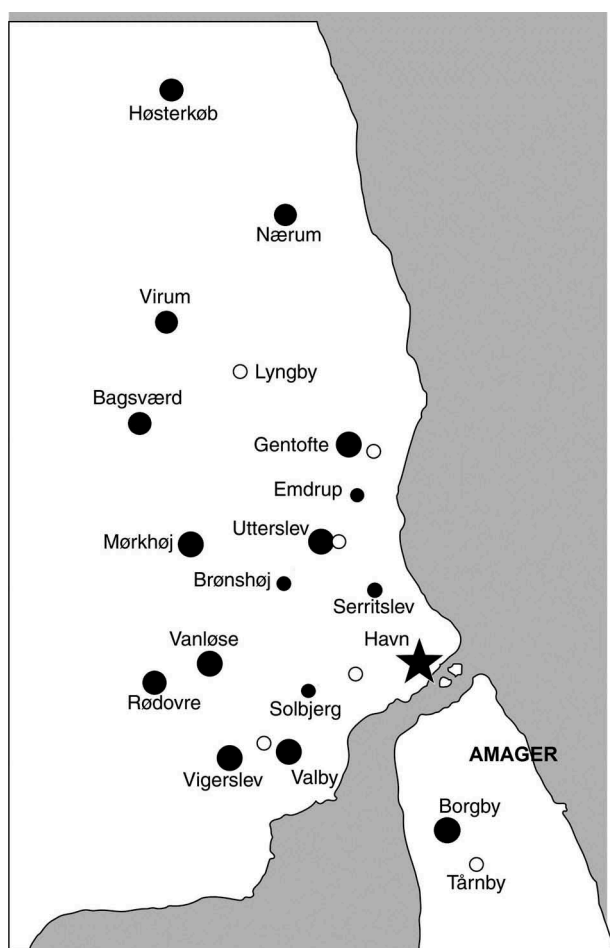
Figure 8. The area around Copenhagen, showing the manors (large filled circles) included in the grant to bishop Absalon 1186. Small filled circles mark villages included in the grant; unfilled circles mark the locations of hoard findings from the eleventh and twelfth century. Adapted from Frandsen *et al.* (1996). Ill: Ea Rasmussen, Moesgaard Museum and Ann-Lisa Pedersen.

the ditch, other information needs to be taken into consideration.

Settlement within 'Clemensstaden'?

Even if settlement indications are strong in the area bounded by the ditch, none of the archaeological evidence encountered in the area shows a spatial connection to the limits of the enclosure. As will be discussed below, this raises questions about what activities should be seen as related to the feature in question. What has been going on inside the (seemingly) enclosed area?

Going back to 1909, in the corner plot of Frederiksberggade and Nytorv, archaeological observations were undertaken of clay floors, wells, pits,

and a wicker fence in the brick-free cultural deposits (see Figure 7). Most of the features were situated either outside the ditch or, when it came to wells and pits, below it, which means that they were cut by the ditch and rampart and are therefore older (Fabricius 1999, p. 179f, from Ramsing 1910, p. 497). The settlement remains at this location do not seem to spatially respect or take into account the ditch and rampart structure, but clearly represent an older phase of settlement organisation.

In Vestergade and Frederiksberggade, some remains of clay floors, foundation stones, and finds of what must have been Baltic Ware or Early Greyware pottery were discovered early in the twentieth century (Ramsing 1908). The findings were indications of a settlement, but not enough to try and reconstruct how the settlement might have looked. In the 1980s, small excavations in Mikkel Bryggersgade, Vestergade and Frederiksberggade revealed more of the same types of features. Most important here were perhaps the finds from Mikkel Bryggersgade, with clay floors indicating buildings in several phases, together with finds of Baltic Ware, Pingsdorf ware and, for the first time in Copenhagen, fish bones in large quantities (Skaarup 1999a, 1999b).

Apart from Kattesundet, the street Mikkel Bryggers Gade (which still exists today) and the street Vombadstuestræde (no longer in existence, closed in the eighteenth century) are seen as remains of 'voldgader' (rampart streets) connected to the enclosure (Fabricius 1999, p. 185ff). Furthermore, the streets Store and Lille Sankt Clemens stræde, closed after the fires of the eighteenth century, are seen as part of the infrastructure at the time of the Sankt Clemens church, perhaps going back to the eleventh and twelfth centuries (Store Sankt Clemens stræde is seen on Figure 3).

Streets and settlement east of 'Clemensstaden'

Excavations to the north of Vestergade, which was the main street through the town in the medieval period, have revealed little information about this early period. The remains of a large pond and a ditch running east–west parallel to Vestergade have been documented, but cultural deposits seem to be few in this area. To the east, Vestergade ends in Gammeltorv and Nytorv, where we earlier accounted for remains of early medieval clay floors, wells, pits, and early medieval pottery findings. The street Nørregade, one of two main roads
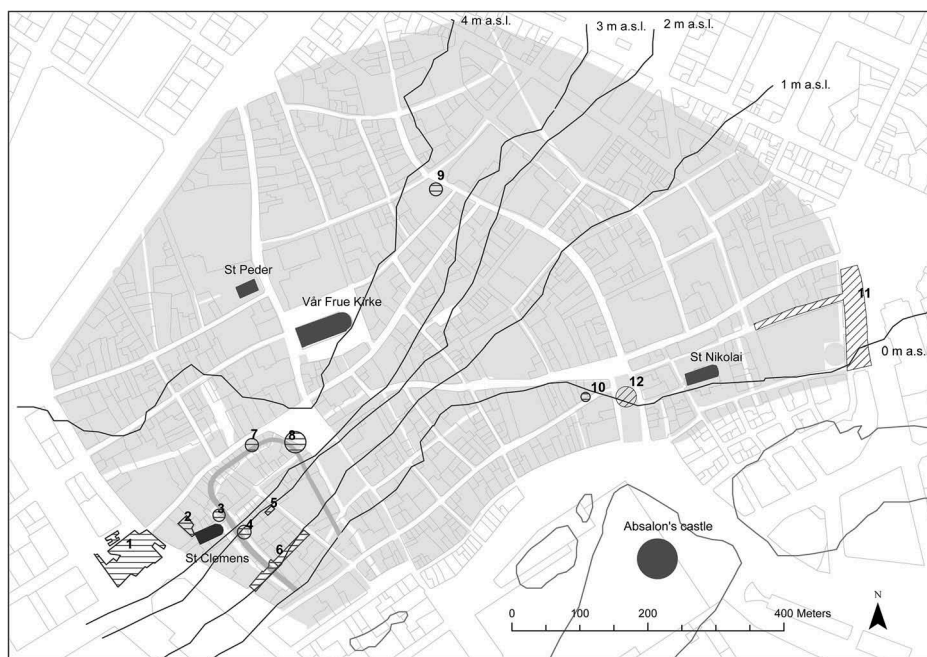
Figure 9. Plan of Copenhagen showing older and newer archaeological sites which have contributed with important information about the town's development before 1200. The contemporary shoreline and topographic levels are marked. Extent of fourteenth-century Copenhagen is seen in shaded grey. A map of modern Copenhagen is used as a background.1: Rådhuspladsen KBM 3827 (2011–12); KBM 4286 (2017–18); 2: Sankt Clemens/Vestergade 29–31 KBM 3621 (2008); 3: Frederiksberggade 30 (AA 72 (1984); 4: Mikkel Bryggers Gade 11–13 KBM 250 (1989); 5: Kattesundet 10 KBM 4088 (2015); 6: Nørregade m.fl (Lavendelstræde).KBM 4022 (2015); 7: Vestergade 7 AA 104 (1987); 8: Gammeltorv/Nytorv/Frederiksberggade. (1909); 9: Regensen KBM 3824 (2012); 10: Amagertorv 7/Læderstræde 8 KBM 2822 (2003); 11: Kongens Nytorv KBM 1410/1910 (1996), KBM 3829 (2010–16), 12: Højbro Plads, KBM 1213 (1994).

entering the medieval town from the north, also opens into Gammeltorv. A little further north, where the ground rises quite steeply, the Church of Our Lady was later built along this same street.

It is quite clear that both Gammeltorv and the eastern Højbro Plads were important locations in the early town, even if at this early point in time they were not open places or squares. Gammeltorv would have had direct access to the waterfront to the south. From here and going east, the street Vimmelskaftet, which is probably medieval in origin, continued into the location of present-day Amagertorv and Højbro Plads. Before the great fires of the late eighteenth century, Højbro Plads was not a square, but a narrow street leading down to the waterfront, where the bridge over to Strandholmen with the castle was situated. The ferry to Amager also went from here (the island Amager is seen on Figure 8; Johansen 1999, p. 133ff). The road leading from the north to Højbro Plads – present-day Købmagergade – is also probably medieval in origin (with its earlier name, Bjørnebrogade; Fabricius 2006, p. 160). Thick cultural deposits containing early medieval finds have

been documented at Højbro Plads (KBM 1213). In the excavation the deposits were in the excavation seen to be dumps of household material deriving from nearby settlement. It was concluded that the deposits had been lying below water, preserving organic material such as wooden plates and leather (Johansen 1999, p. 135ff). Noticeable were the finds of a broken bone pin with a runic inscription, and 'spyta' (sticks or spits) typologically dated to late Viking Age, found together with Baltic Ware (ibid.).

We have no archaeological evidence for the earliest harbour, but on the basis of topography and indications of settlement extent and features, the area by and going west from Højbro Plads seems a good location for a harbour (Skaarup 1999b, p. 81). It is also an option that rather than a harbour where the ships docked, this was done in the shallow waters around Strandholmen and the other islands, just south of the waterfront. This was the case in other medieval towns such as Malmö (Reisnert 2006, p. 75f). The above-mentioned written account of 1329 about the robbed English tradesman also speaks of the 'reef' of Copenhagen (DD 2. ser, vol. 10, no. 109).

North of Højbro Plads, material from a street layer at Amagertorv has been AMS-dated to the mid-eleventh to mid-twelfth century (Poulsen 2003, p. 17). It is however not clear if the material that constitutes the road here came from this location or was brought from elsewhere. Going eastwards, the Church of Sankt Nikolai was built in the area between Højbro Plads and Kongens Nytorv in the thirteenth century. Before this there was probably a street running along the contemporary shoreline through to the area of present-day Kongens Nytorv.

In the first Metro excavations of the late 1990s, the only early medieval settlement remains encountered were some ditches with backfill containing large amounts of household waste (animal bones). Bone material from this waste material was AMS-dated to 1029–1158 AD (Table 1). A Viking-style decorated knife-handle made of antler was also found. It is not known where this material came from, but it was probably from close by (Kristiansen 1998). No substantial remains of an eastern manorial property could however be traced through archaeological sources (Frederiksen *et al.* 1999). Having said this, the evidence that does exist shows clearly that much remains to be revealed of the eastern edges of early medieval Copenhagen.

Fortifications

As noted above, the written sources tell of large-scale fortifications being built around Copenhagen in the thirteenth century. The archaeological observations of this fortification stretch back to the first part of the twentieth century, but it was not until the first Metro excavation at Kongens Nytorv in 1996 that solid archaeological material was produced (Kristiansen 1998). In the course of this excavation it was seen that the part of the fortification excavated, which represented the wall and moat south of the eastern gate (Østerport), could be dated through 14C and dendrochronology to the later part of the thirteenth century. For the first time the town wall mentioned in the written sources could be seen, and it could be stated that it had been built at the same time as the rampart rather than as a strengthening of this. On the basis of these dates, together with the information from written sources, the theory was

advanced that the building of the fortification had started at the other end, at Vesterport, and finished at Østerport (Kristiansen 1999a, p. 160, 173).

Critique of 'Clemensstaden' and later theories

As early as the 1980s, however, the idea of the ditch as fortifying the oldest area of the town was challenged. In 1986 Axel Christophersen argued for an alternative theory of the earliest town extent, largely based on written accounts of tax zones within the later medieval town, additional written sources, and a dismissal of the theories of Clemensstaden, which he believed were made on insubstantial grounds. Christopherson's idea of the early town was that it had been located along the beach from Gammel Strand to Højbro Plads. This location was connected to the reason Christophersen saw for the origin of Havn: that it had formed as a result of the need for a marketplace for trade in the Øresund region, largely connected to the increasing importance of fishing (Christophersen 1986, p. 22). The emphasis on trade and fishing has been maintained in later research as a prominent explanation for the formation of Havn. Hanne Fabricius (1999) as well as El-Sharnouby and Høst-Madsen (2008) name fishing as an important factor in the early town formation. The idea is based on Copenhagen's location on the Øresund, where, from the late twelfth century, international seasonal fish markets in Skanør and Falsterbo attracted many people to the region. Fishing was an important economic activity in the Øresund area, and the lack of solid evidence for other types of trade in early Copenhagen has made this theory stronger. The first town laws of 1254 mention specific taxes for using nets during the winter herring fishing (Kroman 1951-61, vol. 3, no. 1, p. 3–7), indicating that a part of the population were active seasonal fishermen. Archaeological evidence of fishing to support this theory has however been largely missing. Before the Metro Cityring excavations, possible traces of fish-processing had been found in only one place. In the plot in Mikkel Bryggersgade excavated in 1987, three small holes were excavated in 1986 and 1989 (Skaarup 1993). Here, as mentioned above, large quantities of fish bones were deposited in some of the older layers (Skaarup 1993, p. 23). The dominant species were herring, gadids (from the cod family) and eel. Whether the fish bones had been deposited as

production waste or as leftovers from meals is not clear, although the many vertebrae and bones from fish too small to have been eaten have been interpreted as waste from professional fishing. The vertebrae would have come from the gutting of the fish before further processing, and the small bones are regarded as by-catch, small fish caught together with larger ones but thrown away because of their small size (Robinson et al. 1991).

In recent years the role of the horse-shoe shaped enclosure has also been questioned. Both Fabricius (1999), El-Sharnouby and Høst-Madsen (2008) and Jane Jark Jensen (forthcoming) see the town as extending further, probably spreading along the coast between Rådhuspladsen and Kongens Nytorv.

On the question of the dating of the oldest settlement, consensus among scholars has for a long time been that the earliest activities, based on the archaeological remains, seem to go back to the eleventh century. The nature and scale of activity has however been highly uncertain, making it impossible to grasp a clear understanding of the site in this period. As we shall see, the possibilities for new knowledge and ideas about the early development of Havn are now considerably improved. Before continuing to these, however, we will move outside Havn and take a look at its place in the landscape and the region.

Situating the town: topography

Copenhagen lies on the eastern coast of Zealand, opposite Scania. Between Zealand and Scania is the Øresund, a strait that today marks the border between Denmark and Sweden, but in the medieval period connected two important Danish regions. The Øresund has historically had great economic importance for Denmark with respect to trade, communication and fishing, but its location on the coast also made it vulnerable to attacks and to plunder. Topographically, Copenhagen was situated in the shelter of a few small islets including Amager, Bremerholm, and Strandholmen, where Bishop Absalon built his castle. The location was very suitable for a port or a landing site, with a deep natural harbour – a rarity on the coast of eastern Zealand (Fabricius 1999, p. 57). The topography of the town area was quite flat along the areas close to the waterfront, with some patches of marshy terrain. The land rose up to six metres above sea level at its highest

point, close to where Vor Frue Kirke was constructed around AD 1200. In the western town area, the land rises almost immediately more than a metre above sea level, while the eastern parts closer to present-day Kongens Nytorv included a wide area towards the seafront with much flatter and lower ground (between one and two metres above sea level; see Figure 9). The oldest port, the place where the boats tied up, has not been identified, but the topography means that it was probably located in the area between the Town Hall and Højbro Plads (as discussed above). Due to the extensive landfills/land reclamation from the early thirteenth century, all traces of the original harbour have probably been erased. In the eleventh and twelfth centuries, the waterfront would have been situated along the present-day streets of Farvergade/Kompagnistræde/Læderstræde, across Højbro Plads and the Church of Sankt Nicolai, through Vingårdsstræde to the south end of Kongens Nytorv.

Copenhagen seems to have been the earliest town on the eastern coast of Zealand. We know that a royal castle was built at Vordingborg, in South Zealand, c. 1160, but so far no indications of urban settlement have been localised that date to before the thirteenth century (Wille-Jørgensen 2014).

One reason for Copenhagen's existence and for its formation at this point in time relates to its placement midway between the eleventh-century bishop towns of Roskilde and Lund. Copenhagen has sometimes even been called 'the port of Roskilde'. There has been discussion of whether the deliberate sinking of the Skuldeslevskibene Viking ships in the late eleventh century in the Roskilde fjord may have had a long-term effect on the possibilities for sailing to and from the harbour at Roskilde. This, however, does not seem to be the case, as the disruptive effects of the wreckings seem to have been limited (Fabricius 1999, p. 222, Bill et al. 2000). We find it more likely that the flourishing commercial engagement of Havn and the decreasing importance of the Roskilde harbour were associated with the creation of strengthened commercial networks in the Baltic and in the Sound, much to the benefit of Havn.

Either way, relations with Roskilde and Lund probably played an important role in Copenhagen's early history. Other significant partner towns probably include the Zealandic towns of Ringsted, Slagelse and Næstved, all established as towns in

the eleventh century (Kristensen and Poulsen 2016, p. 68). They had seemingly mostly non-commercial roles, with Slagelse and Ringsted being sites for royal minting, and Ringsted also functioning as the site where the central court, the *landsting* of Zealand, was held. Næstved, on the other hand, has a long history as a settlement, growing from a port and trading centre from the Iron Age (Hansen 1994). Another town of interest when discussing the formation of Copenhagen is Helsingborg, on the other side of the Øresund and on Scania's west coast. The town goes back to the eleventh century (Weidhagen-Hallerdt 2009). Its strategic location on the inlet to the Øresund, together with the relative height of the early town settlement, was perfect for the control of ships coming into and leaving the strait. Large-scale herring fishing is documented here in the twelfth century (Saxo 2005, p. 411). South of Helsingborg is the Viking Age trading centre of Löddeköpinge, close to the settlement and castle of Borgeby (with an eleventh-century mint) and the small eleventh-century town of Lomma. This conglomerate of places related to the royal and clerical authorities as well as commercial interests are certainly relevant in a discussion of the formation of Havn.

So how should we picture the origin and formation of Havn among these towns and centres in the Øresund area? What role could Havn have had in relation to these other centres? Part of the answer, we believe, is to be found in the area surrounding Copenhagen.

The fertile area around early Copenhagen was densely populated by rural settlement as early as the Late Iron Age, as indicated by place names (Jørgensen 2006). We know of several medieval villages in the immediate surrounding landscape; on the island of Amager, the closely situated Sundbyvester and Sundbyøster, both on the main road towards Havn, are mentioned in written sources in 1085 (DD 1 ser., vol. 2, no. 21). In the 1186 charter mentioned above, we hear that in addition to Havn, Archbishop Absalon owned manors in Utterslev, Gentofte, Mørkhøj and a large number of villages in the vicinity of Copenhagen (see Figure 8; DD 1 ser., vol. 3, no. 137). These were presumably given to him together with Havn, suggesting that they formed parts of a network of royal manors in the region around the emerging town (Frandsen *et al.* 1996, p. 106f, Ulsig 2000, p. 89ff).

Almost no archaeological observations, however, have been made of these or other rural settlements. One exception is the village Tårnby on the island Amager, where a large-scale excavation took place in 1993–1994, yielding evidence of a medieval settlement with a Viking Age predecessor (Kristiansen (ed.) 2005). The areas where these settlements were located are today integrated into the city of Copenhagen and their medieval history is largely lost. Their relevance to the emerging town settlement of Copenhagen should however not be overlooked as we seek networks of trade and migration between town and hinterland. The nearby manors owned by Absalon (and before him by the King) must be seen as active partners with others in the town's early development. Something that could be seen as an indication of close contact between the town and the rural settlements are the treasure finds made in the areas surrounding Copenhagen (National Museum of Denmark, archive). Very few eleventh- and twelfth-century coins have been found in Copenhagen itself, but in the medieval rural areas such as Emdrup, Frederiksberg, Gentofte, Lyngby, Valby and Tårnby,

Figure 10. Air-raid shelters from World War II at Rådhuspladsen. Photo from 1944. Photographer unknown. Copenhagen City Archive.
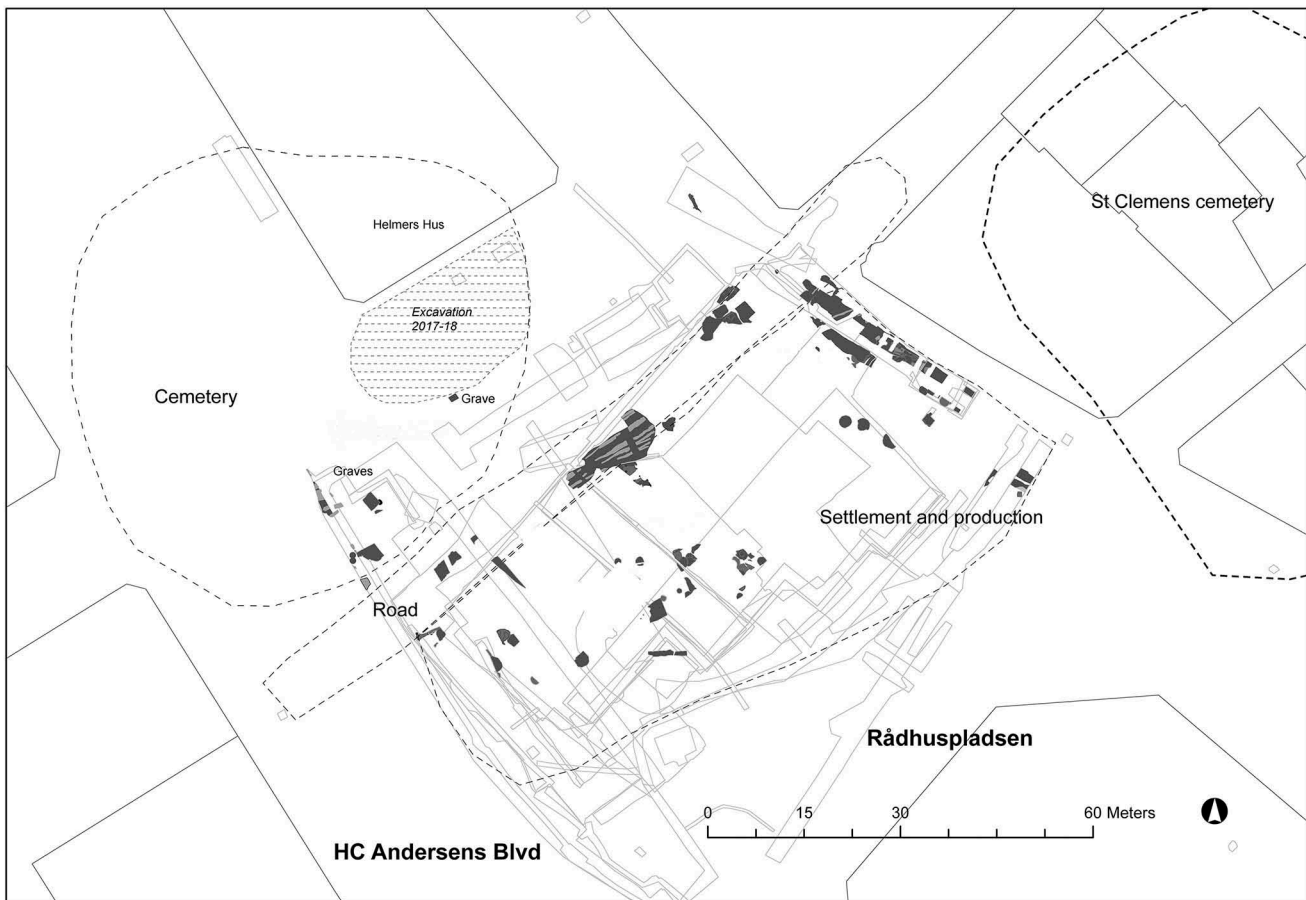
Figure 11. Area of Rådhuspladsen with medieval features revealed at the excavation in 2011–12 (KBM 3827). Areas of different functions are marked within dashed lines. Note – the dashed area within the 'Cemetery' marks the area where additional graves presently are being excavated (Dec. 2017–spring 2018; KBM 4286). Seen on the plan is also Helmers Hus, outside of which the findings of human bones were made in 1954. To the right is the presumed extent of St Clemens cemetery shown.

treasure finds both small and large of Danish, English and German coins are not uncommon (National Museum of Denmark, archive). The quite numerous finds of Arabic (kufic) tenth-century coins found in the Copenhagen region as well as in western Zealand and across the Øresund in Scania (Heijne 2004) indicates that Copenhagen was a part of an older trade network in this area.

New discoveries: early Copenhagen in a new light

During the last ten years, a number of excavations at interesting locations have produced substantial new knowledge on the medieval town (Figure 9). In addition to this, the detailed documentation methods and extensive scientific sampling undertaken at some of these excavations now enable us to ask

more exact questions about chronology, activities and actors related to the material culture. Having said this, the archaeological source situation compared to some other towns is still quite modest, as most of the large-scale excavations that have taken place have been located in the outskirts of the medieval town of Copenhagen. They have also taken place in areas intensely used from the sixteenth century onwards, which has led to a high degree of interference in the form of large post-medieval truncations. This is especially the case for the Metro Cityring site at Rådhuspladsen. During World War II, many air-raid shelters were constructed on this square and these substantially damaged the medieval remains (Figure 10).

In spite of these limitations, information has come to light during this period on many aspects of the early town. Some of the new data challenges what has
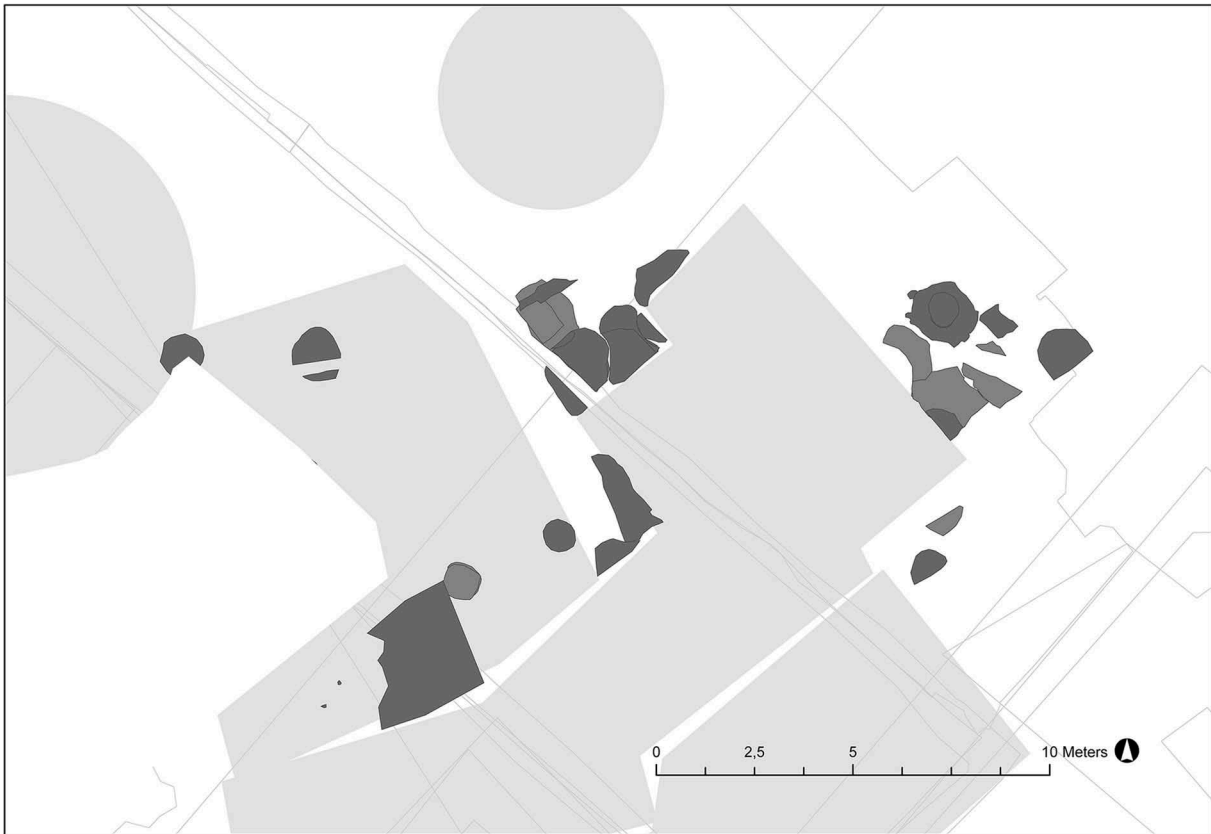
Figure 12. Area at the centre of Rådhuspladsen (KBM 3827) with several phases of early and high medieval pits.
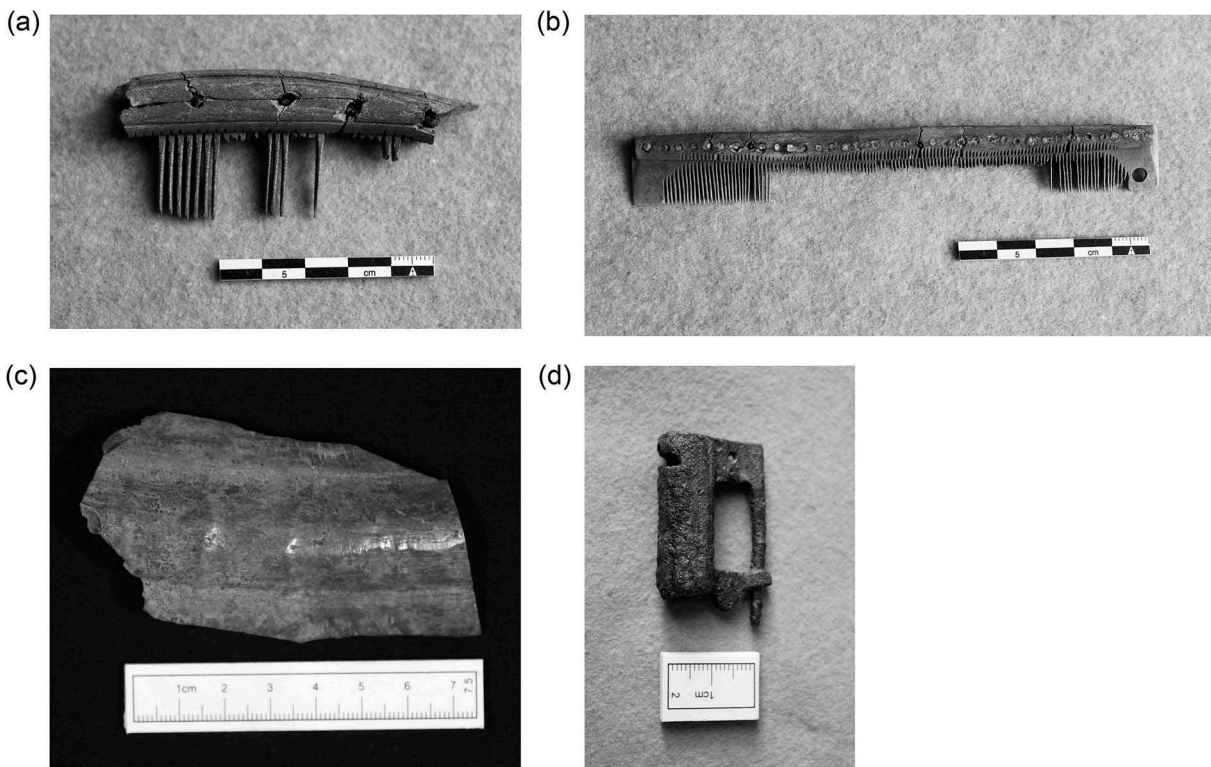
Figure 13. Some of the early medieval finds from the Metro Cityring excavation at Rådhuspladsen 2011–12. a: single-sided composite comb (FO 220,702; from pit Group 399), type dated to late tenth to eleventh century (App. 24 in Lyne and Dahlström, 2015); b: single-sided composite comb (FO 220,696; from pit Group 399), type dated to late tenth to eleventh century (ibid.); c: off-cut from walrus tooth (FO 200,988; from pit Group 104; ibid, App. 1); d: Cu Alloy padlock (FO 201,314; from pit Group 61) Photos: Museum of Copenhagen and National Museum.

previously been believed about the early town, some fills important gaps in prior knowledge, and some raises new questions. In what follows we will present the new archaeological evidence that forms the new basis for knowledge of the town development leading up to the thirteenth century. This will enable us to deal with the proposed questions of how we should understand the formation and early development of the town, who was involved in these processes, and what their motivations were. Below we will revisit earlier described knowledge and theories related to the extent of the early town, church topography, the fortifications, and the town functions or activities. We will start in the west, presenting the evidence for a new town area by Rådhuspladsen, then move eastwards in the town, discussing the previously debated concept of 'Clemensstaden'. Moving further on, we will then touch upon the question of a possible eastern settlement around Kongens Nytorv, then take a closer look at what the new evidence says about the early churches of the town. We will then make some brief points regarding the medieval fortifications, and finally we will examine the evidence for activities in the early town.

The basis for the discussion is the results of the Metro Cityring excavations between 2011 and 2016, together with a few other important excavations conducted in the city centre from 2008 to 2017. As we will see, at the time of writing (January 2018) an excavation at Rådhuspladsen is still ongoing which is yielding important new information related to the findings in the Metro excavation in 2011–2012. This underlines the fact that there is still much information about medieval Copenhagen which has yet to be revealed.

An unknown part of the early town: Rådhuspladsen and the Metro Cityring excavations

The Metro Cityring excavation at Rådhuspladsen in 2011–2012 revealed surprising finds in a previously unknown part of the early medieval settlement, including evidence for dwelling, workshops and a cemetery (Figure 11). The findings changed what we thought we knew about the earliest extent of the town, early church topography, and the medieval fortifications. They also provided us with information about early medieval activities and offered new possibilities for dating the earliest phase of settlement (Dahlström 2014, Lyne and Dahlström 2015).

The excavation, covering c. 4800 m^2, was located in the northern half of Rådhuspladsen. Here, the remains of a settlement and a workshop area dating from the late eleventh to fourteenth century were discovered. In the north-west corner, the outer parts of a cemetery were found (see description and discussion later in the text). No limits to the settlement and workshop area were found, but due to later truncations and the limited excavation area, the further extent is unknown.

The remains from the settlement area show intense activity, with several reorganisations of the area. They consist of fragments of buildings in the shape of postholes, clay floors, hearths, beam slots and demolished clay walls, storage and refuse pits, wells, levelling layers, roads made of pebbles, slag, and large animal bones, as well as a paved street. The presence of these features and finds undoubtedly speak of a busy area of a mixed dwelling and workshop character, but the fragmentation of the remains limits the detail of the information that can be gleaned. Spatial analysis of the features, combined with contextual and quantitative analyses of the refuse material recovered from the many waste pits spread over the area, will hopefully yield a more detailed picture of how the different parts of the area have been used (see Figure 12; Dahlström, forthcoming).

The find categories contain, among other things, large amounts of iron-working residue, animal bones, Early Greyware and Baltic Ware, but also bone combs and bone-working residue, tools, and building debris such as nails and daub (see Figure 13; Lyne and Dahlström, 2015). There is clear evidence of several reorganisations of the settlement area. While the remains of a road running through the area from east-south-east to west-north-west (Figure 11) seem consistent through the whole period in question, fragments of streets and open areas come and go, giving valuable information about the spatial organisation of the activities and the area's relation to activities previously documented to the east of Rådhuspladsen. Placements of pits and wells are fairly consistent, but the features have been relocated within smaller areas several times in the usage period. No detailed information can be gained from the building fragments, but here too it is evident that there are several phases of buildings, and that there was a need for rearrangement of activities within the area.

No plot borders have been established, but this could be due to the fragmentary preservation on the site.

Even though the remains are fragmentary, the area emerges as a busy site with a wide range of activities at the time. Five main phases of activity can be recognised between the late eleventh and the fourteenth century. The first, starting in the late eleventh century and ending in the early twelfth,

has the character of a newly established area, with a lower density of features (Lyne and Dahlström, 2015). During the twelfth century, all activities intensify – refuse from households and also iron-working both increase, as does the number of features in the area (Dahlström, forthcoming).

With the information from the excavation at Rådhuspladsen, a plan of the western part of the early town settlement starts to form. Given that the
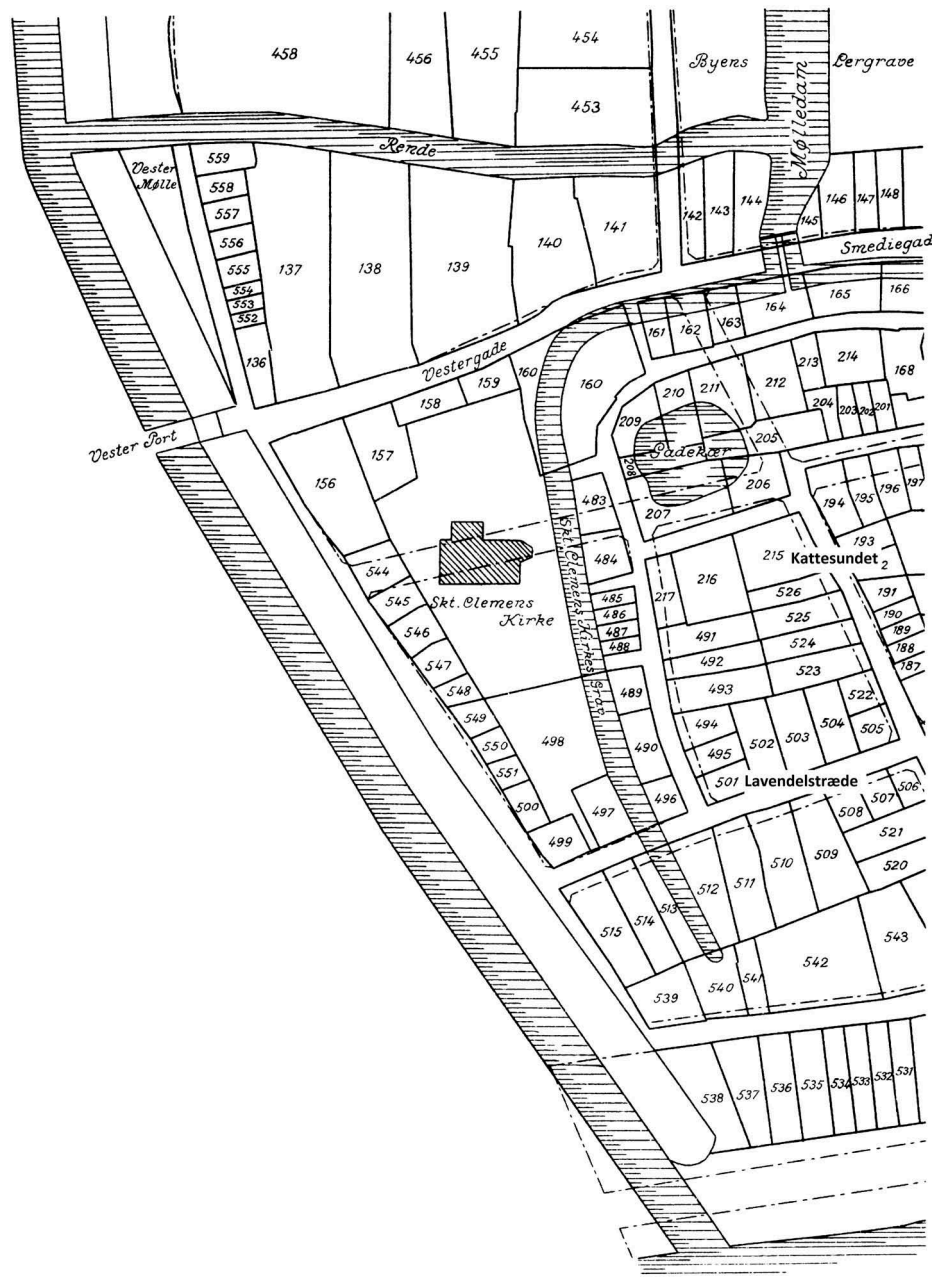
Figure 14. Ramsing's (1940) reconstruction of the western part of the enclosed town area, including his interpretations of ponds and ditches related to the enclosure. Also shown on the map is the presumed placement of the Sankt Clemens church and the present-day streets of Vestergade, Kattesundet and Lavendelstræde. Information on plots and streets from the Bishop of Roskilde's cadaster (in Danish, jordebog) from 1377 is used for Ramsing's background map.

early medieval shoreline was probably located quite near this area and also that the height above sea level rises quite fast on this part of the coastline, the area where Rådhuspladsen is situated today seems like a very good choice of location for settlement. It should again be pointed out that no limit to the settlement or to the cemetery remains towards the west was identified at Rådhuspladsen, so that it is quite possible that it continued even further outside the known later medieval town area.

It was clear from the excavation of 2011–2012 that the area has been dry since it was first settled (Hald et al., 2015, p. 5). There were no traces of seasonal flooding or marshy areas such as are seen on sites further to the east. As part of the post-excavation analyses from Rådhuspladsen, microfossils retrieved from the older features were analysed in order to gather information about the general environment. The analyses showed that the collection of plants present before AD 1250 characterised a newly established environment, while the later flora to a large extent reflected a more mature urban environment. The archaeobotanical evidence further showed that its source was mainly household and workshop activities (Hald et al., 2015).

Clemensstaden: a new take

The long-standing idea that the first town was limited to the so-called 'Clemensstaden' area now seems increasingly less plausible as a consequence of recent archaeological findings, primarily at Rådhuspladsen. Even if archaeologists have, as noted above, questioned this idea for some time, there has been little solid source material that might entirely dismiss the theory (El-Sharnouby and Høst-Madsen, 2008). The archaeological material encountered at Rådhuspladsen provides new data, which has enabled a clearer alternative to the traditional interpretations of the town's extent, disqualifying Clemensstaden as the site of the earliest town.

The new archaeological data requires us to go back to the enclosed area of 'Clemensstaden' and see it in a new way. If it did not frame the earliest town, what then was its function? A few recent archaeological excavations raise new questions, but perhaps also help us to think about the enclosure in a new way. In 2015, parts of a plot in Kattesundet (KBM 4088) and an area along Lavendelstræde (KBM 4022) were investigated due to upcoming commercial building

development. Kattesundet is a north–south-orientated street running centrally through the Clemensstaden area (see Figure 14). In the course of construction of a new cellar in a building at Kattesundet 10, cultural layers containing early medieval finds in the shape of Early Greyware and a late Viking Age-style comb case were collected. An area of c. 10 m^2 was excavated. The cultural deposits were very homogenous: there were no marked features, but the deposits were undisturbed by later activity and showed a clear lower interface into the underlying late mesolithic culture-horizon. Above the early medieval horizon, a disturbed deposit with both later medieval and post-medieval finds was collected (KBM 4088, Ruter, 2016). Whether the lack of clearly defined features was the result of extensive bioturbation or simply marked an area that has only been little used, we know too little to say for sure. But the question does arise of what activities went on inside the early ditch and rampart if so few material traces are left. The overall impression of the remains within the enclosure is not what one would expect in a core settlement area in an early medieval town or settlement. If we look back in time, it is noticeable that all earlier observations of early settlement connected to the area of Clemensstaden derive from peripheral parts, or even from areas just outside it. If this area did not function as the core of the early medieval town of Copenhagen, what could its function have been? Before we continue with that discussion, the above-mentioned street of Kattesundet deserves a few words in connection with this discussion.

The age of this street is not known, but it appears on the oldest maps of the town (see Fabricius, 1999, p. 31ff), and the name Kattesundet appears in a number of other medieval towns in Denmark such as Lund, Malmö, Horsens, Schleswig and Svendborg (Fleischer, 1985). The meaning of the name is not completely clear, but it is believed to refer to a narrow stream or canal in the town connected to a larger body of water such as a pond, stream or the sea. In the Copenhagen case this is interesting, because the northern extension of the street beyond the presumed rampart and ditch is spatially connected to an earlier-observed pond with an east–west connected ditch (Rosenkjær, 1906, p. 36, Ramsing, 1940, bd. III, p. 47). The observations of the connecting ditch are of older date. Parts of the pond were observed again in 1987, when it was

determined that the horseshoe-shaped ditch and pond could not have been part of a mill (see above; Skaarup, 1988, p. 29.) Might there have been a narrow stream running along the Kattesundet street down to the seashore, then later redirected in the twelfth century when the ditch and rampart were built and the water directed into the enclosing ditch instead? This might be a topographical situation we should bear in mind when picturing the earliest phase of the settlement in Copenhagen.

The other excavation in 2015 that produced information relevant to the enclosure was situated in Lavendelstræde, where the south-west end of the ditch and rampart were predicted to run through (Figure 14). The area in question was excavated down to 4.5 m below present street level, and at that depth natural clay was encountered. No traces were seen of either the ditch or the rampart. Instead, the deposits found were dark and very homogenous, similar to other excavated parts along Lavendelstræde that had been excavated to a depth of 2.5 m. Post-excavation analysis of the material is still undergoing, but it seems the area this close to the original waterfront had been landfilled before it was taken into use later on in the medieval period (KBM 4022). The results of this investigation must however be seen as inconclusive, adding to the scepticism about the solidity of the evidence previously regarded as fact.

It is therefore evident that at some point in the early medieval period there was some kind of ditch surrounding the whole or part of the appointed area. The archaeological evidence for the rampart which has been said to accompany the ditch is however weak, although it is likely that it existed in some form. The only solid observation was made in 1909 at the corner of Frederiksberggade/Nytorv, and to say that it has continued all the way along the ditch is, we believe, to say too much. Additionally, some of the observations of the ditch itself should be regarded with some scepticism. Most of these are very old, and the interpretations are sometimes too imaginative. Of the three excavations conducted since 1912, only one produced clear evidence of the ditch. This therefore brings us back to the question: if not a fortification, and not a mill race, what was the function of the ditch? If we move outside Copenhagen and look at other towns in Denmark, we find a couple of early fortifications that could be compared with the

enclosure in Copenhagen but still show crucial differences. In Aarhus, Jutland, the first fortification, dating from the late tenth century, had a similar shape and topographical placement facing the waterfront. It is however much more robust, with a ditch 30 m wide and 3.6 m deep, and a rampart 6 m high and 18 m wide. The area it enclosed was also substantially larger (Skov, 2008, p. 222). One similarity might be that there was settlement outside the fortifications and that this was seen as a sort of suburb (Poulsen, 2011). The most relevant comparison is with Horsens, Jutland, where a similar small enclosure from the eleventh to twelfth century has been documented and interpreted as a fortification. Yet the traces of substantial settlement activity outside the enclosure in Horsens (Kristensen and Poulsen, 2016, p. 69f, 206f), again raise the question whether it is the town itself which was fortified, or a specific element of the town. Going back to Copenhagen, there is, as already mentioned, intensive settlement activity in a quite large area to the west of the enclosure. The enclosure cut through older settlement activity to both east and west, in this way marking a considerable reorganisation rather, evidently, than the first settlement area. The enclosed area is also too small to be regarded as a town – especially if the settled area outside it is larger than the alleged town itself. There are several reasons why the enclosure should not be seen as a fortification – at least not for the whole town. Against this background, we suggest that it could represent a demarcation of a royal manor predating Absalon's castle, comparable with the other rural manors around Copenhagen mentioned in Absalon's grant. The size of the enclosure could be said to fit a large manorial property better than an entire town. The back-filling of the ditch could, as previously seen, be dated to the late twelfth to early thirteenth century, which could be seen as connected to the date of the construction of Absalon's castle at a time when the manor would no longer have a function. There is at this point, however, insufficient information to conclude more definitely on this question, especially as so little is known of the activities inside the enclosure.

A settlement in the east?

Only a few minor archaeological investigations have in the last few years been undertaken in the area

Figure 15. Bulwark related to the medieval rampart at Østerport, dated by dendrochronology to the early thirteenth century (KBM 3829). Ill: Museum of Copenhagen.

between Gammeltorv and Kongens Nytorv, and no evidence of early medieval activity was encountered in connection with these. At the other end of the medieval town, in the area of present-day Kongens Nytorv, some early remains of activity were documented at the Metro Cityring excavation in 2010–2016 (KBM 3829). In Lille Kongensgade, extensive findings of plot borders indicate a strict organisation of the area prior to 1200 (Jensen, forthcoming, Steineke and Jensen, 2017). No clear settlement indications from before AD 1200 have been found, except for the earlier findings of animal bones in backfills of ditches, telling of animal husbandry in the vicinity (Kristiansen, 1999b). The lack of settlement finds is perhaps not surprising in view of the topography, as the whole area moving east from Højbro Plads to Kongens Nytorv is very low above sea level (0–1 m). The findings of clay-lined pits and a smithy from the thirteenth to fourteenth century, telling of blacksmithing and fish handling, indicate the types of activities going on in this area early on

(Steineke and Jensen, 2017). In view of its topography, the area around Kongens Nytorv should perhaps be seen to a large extent as an area utilised for less permanent activities in the early phase of the urban settlement. These might have included various different types of production, workshops and activities related to the fishing that was without a doubt so important for the economy of the town. Long-term speculations about an early eastern centre in Copenhagen, perhaps even a manor, remain unsolved in the light of the newest findings.

Medieval fortifications: a reinterpretation

In the Metro Cityring excavations of 2010–2012 in Kongens Nytorv and Rådhuspladsen, substantial new evidence from the medieval fortifications was encountered. Both the Østerport and Vesterport areas were excavated, comprising the remains of moats, gates, bridges, revetments, a wall and a rampart from the high medieval period, together with subsequent renovations and, finally, demolition in connection with the new fortifications built by King Christian IV in the mid-seventeenth century (Lyne and Dahlström, 2015, Steineke and Jensen, 2017).

At Kongens Nytorv, remains of the rampart, bulwark, and moat were preserved from the original phase of the fortifications (Figure 15). AMS and dendrochronological analyses both indicate a date for the first phase of the fortification in the early thirteenth century. The bulwark consisted of wooden stakes and planks, which were found running in parallel lines north–south and could be followed for c. 15 m. The wooden components were dated by dendrochronology as well as 14C. In total, 29 samples were analysed by dendrochronology, and the collective result shows the first construction to have taken place in the late twelfth or early thirteenth century (Steineke and Jensen, 2017). This dating span was supported by two AMS dates (ibid.). The wooden stakes are not likely to have been 'the town's planks', as rather than being placed on top of a rampart, they were driven down directly into the natural clay. The oldest rampart was seen to have been 7.6 m wide, while its height is not known due to later truncations. It was dated by one AMS sample to the early thirteenth century (Steineke and Jensen, 2017). The remains of the moat were too fragmentary to give an idea of its shape and

dimensions. Solid information of the size and location of the moat were however recovered earlier, at the excavation KBM 1410 (Kristiansen, 1998).

The eastern gate building was also encountered during the excavation of 2010–2011. The remains of a massive stone foundation, with traces of brickwork attached, gave the impression of an impressive eastern entrance to the high medieval town. A road with wheel ruts was preserved running through the gate building (Steineke and Jensen, 2017).

The difference in dates compared to those revealed by the first Metro excavation further south may be explained by the different source materials and dating methods used. It could also be that the remains found at the southern end represented a renovation rather than the earliest phase. The dendrochronological dates for the bulwarks found in the 2010–2011 excavation are very solid, and must mean that the earliest phase of fortification on the eastern side of the town should be dated to the first decades of the thirteenth century.

In contrast to the early dates for Kongens Nytorv, the Rådhuspladsen dates proved to be very late. The remains of a western gate consisted of a gate building, moat, rampart, and three consecutive bridges crossing the moat (Lyne and Dahlström, 2015, p. 170ff). No evidence of a brick wall was found, and only the lower parts of earthen ramparts. Nor was a wooden post structure found comparable to that at Kongens Nytorv. The medieval moat had been partly destroyed by later moat expansions, showing that the moat was remodelled several times up to about AD 1600, when a mill was constructed south of the gate and the area thoroughly reconstructed. The remains indicate that the medieval moat was 22 m wide and 6 m deep at the western gate area (Lyne and Dahlström, 2015, p. 172). The most reliable date for the oldest phase of the fortifications at the western gate area comes from the bridge across the moat. Deep down a timber structure was found, which had been functioning as the foundation of what seems to have been the oldest bridge across the moat, leading traffic in and out of the western
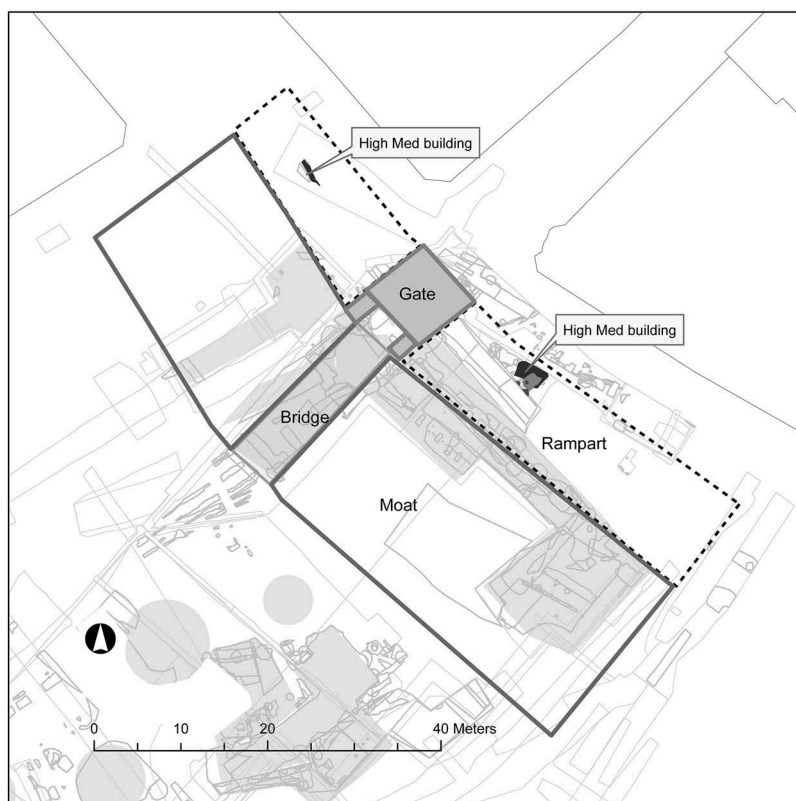
Figure 16. Reconstruction of the area around the medieval western gate according to information from the 2011–2012 and the 2016 excavations (KBM 3827). Archaeological remains of thirteenth/fourteenth-century building fragments covered by the rampart are shown in black. Reconstruction of the placement of the rampart is seen as a dashed line. Reconstruction of the placement of the moat is seen as a solid line.

parts of town. The timbers were dated by dendro-chronological analysis to AD 1361, 1370/71, 1371/72 and 1406 (±7; ibid. p. 174ff and Appendix 4). The 1406 date probably represents a later repair, but the other dates quite clearly indicate a date for the oldest preserved bridge to around AD 1372. Nothing seen during fieldwork in the character of the cuts, cultural deposits, or general stratigraphic situation suggested the removal of a large older structure at this location. It is of course a possibility that there had been an older wooden bridge, which was replaced by that of c. 1372. In 2016, an addition to the large excavation field of 2011–2012 was excavated, and this time the original moat cut and the undisturbed primary deposits at the very bottom of the moat could be sampled for 14C analysis. A thistle head lying at the very base of the moat cut was AMS-dated to the most likely date of the mid-to-late-fourteenth century (Lyne and Dahlström, 2016, p. 45). In view of the date from the bottom of the oldest moat on site, together with the results of the dendrochronological analysis of the bridge foundation, a date of c. AD 1372 seems likely (ibid.). In relation to this date, the 1368 attack on Copenhagen by Lübeck should be mentioned. The town is said in the written sources to have been completely devastated (Kjersgaard,

1980, p. 100f). Could the date of the bridge at Vesterport be related to this attack? Was it after this that the fortifications around Copenhagen were finally completed, or does the date from the bridge merely represent a new bridge, rebuilt after the attack?

Of interest when speaking of a date for the oldest western fortification is the extent of the high medieval remains encountered at Rådhuspladsen in 2011–2012. Here, substantial high medieval settlement remains were found very close to the post-medieval moat cut (see Figure 16). Spatially, they must at one point have been covered by the rampart. Remains of buildings with clay floors, a cellar, and demolished walls of wattle and daub were seen to continue all the way towards a spot where they would have been either truncated by the moat cut or covered by the rampart. One building fragment was preserved with six phases of floor constructions: of these, the second level was AMS-dated to the late-thirteenth century, and the fourth to the fourteenth century (Lyne and Dahlström, 2015, p. 140). In another building, pottery finds consisting of Early Redware, Late Greyware and German Stoneware date the usage phase to the thirteenth/ fourteenth century (ibid. p. 138). The late dating for
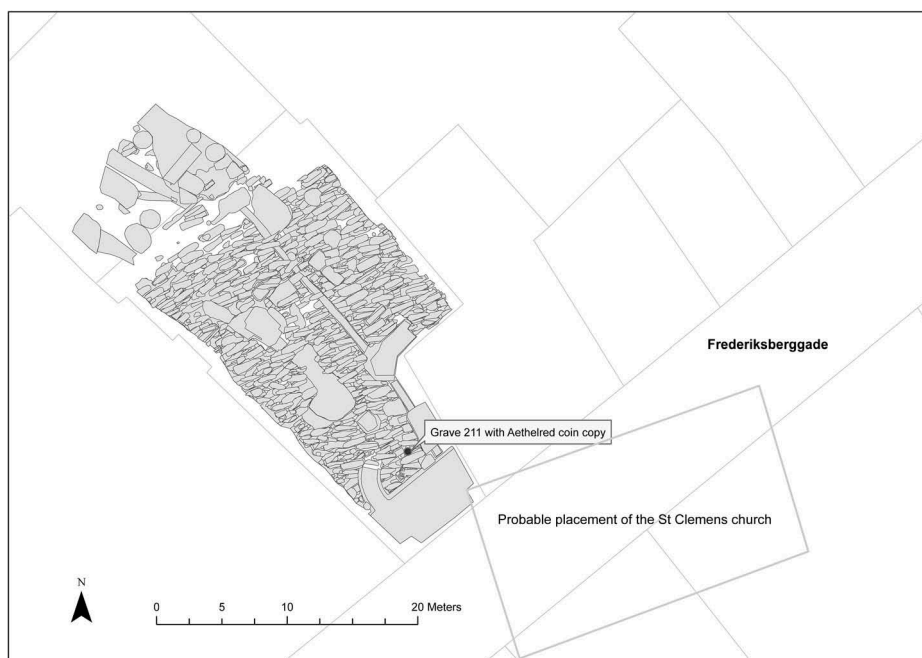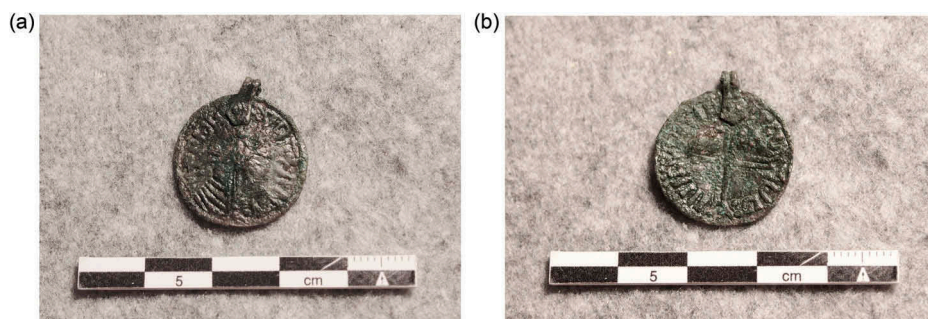

Figure 17. Plan of all graves and other features excavated at Sankt Clemens cemetery in 2008 (KBM 3621).

Figure 18. a-b. Pendant made of Cu-Alloy imitating a coin (diameter 23 mm; KBM 3621:×496) from a grave at Sankt Clemens cemetery. There is a loop attached to the edge to fit with a string or chain. Averse (a) with portrait of a king in profile. That the king depicted is the English King Aethelred 2. (r. 1013–1016) is made clear by the legend referring to Aethelred king of the Englishmen. The reverse (b) bears a double cross surrounded by an inscription with letters that can be seen as a corruption of LUND. The pendant was found on top of the chest of the buried individual, who was a child. According to stratigraphy, the grave belonged to the oldest usage phase of the cemetery. The pendant is manufactured in Lund and can be dated to the first half of the eleventh century. It is difficult to find exact parallels, but in the village Örja close to Helsingborg, Scania, a similar pendant was found in 2010, imitating a Magnus den Gode (1042–47) penny from Lund (information by Gitte Ingvardsen, Historical Museum in Lund; (Sabo (ed) 2013)); and in the village Hyllie outside of Malmö, Scania, a silver penny imitating an Aethelred coin) was found in 2000 (Falk *et al.*, 2007, p. 40). Photos: Museum of Copenhagen.

these buildings, located so close to the moat cut, makes it unlikely that an earlier defence structure was located here. The defence structure of which the primary moat fill and the bridge foundation were part had clearly disturbed the western part of the town settlement, and this probably took place some time in the fourteenth century. If there was an earlier defence crossing the eastern parts of Rådhuspladsen, its remains are totally lost. Even if it could be argued that it has been dug away by later moats, the fact remains that settlement remains from the fourteenth century (and at least from the thirteenth century) probably lay in the path of an earlier moat and rampart. The indications for a scenario in which the western parts of the town's defences were not finalised until 1372 must be seen as strong.

Taken together, the findings from Kongens Nytorv and Rådhuspladsen show a very different picture of the character and the date of the remains, indicating that the process of construction was very extended and perhaps marked by conflict. Given that the area where the western part of the fortifications were to be built was at the time an integrated part of the town area, it could be this situation that lay behind the previously mentioned law of 1254 and the letter of 1289.

Contrary to previous theories, all evidence now points to the eastern part of the fortifications being built first, at the start of the thirteenth century, and reaching completion in the western part possibly as late as 1372. The difference in construction elements also indicates that there were different requirements for the eastern and western parts of the fortification. It seems likely that a town wall did not extend all the way around; earthworks and planks have covered parts of the stretch. The very long construction period suggested is noteworthy, and indicates circumstances which we do not know about at this point. This will be further discussed below.

The earliest churches of the town

The cemetery of Sankt Clemens

In 2008, a large excavation in the northern part of the cemetery belonging to the church of Sankt Clemens confirmed earlier theories of an early date for this church. Within an area of 700 m^2 a total of 1048 graves were documented, some of which contained more than one individual (see Figure 17; Jensen and Dahlström, 2009, Jensen, 2017). Most of the graves were lying in stratigraphical sequences of up to seven layers, and the majority of the burials were more or less truncated by younger graves (Jensen and Dahlström, 2009). It was very clear that the cemetery, or at least this part of it, had been densely used for a long time. No traces of the church itself were found, but on several occasions throughout the twentieth-century parts of the stone foundation has been

encountered (Rosenkjær 1910, p. 4, Ramsing, 1940, p. 31, Hansen 1991 (KBM 589)).

A number of the oldest grave cuts in the 2008 excavation had an alignment separating them from the rest, indicating that they were orientated towards an older church than the rest of the graves. Based on the arm positions of the individuals buried, as well as a pendant belonging to a child found in one of the graves, a preliminary oldest date of the cemetery to the second part of the eleventh century was made (Jensen and Dahlström, 2009, p. 23, 56). The pendant was made as an imitation of an Aethelred II penny (AD 978–1016; Jensen and Dahlström, 2009, p. 56; see Figure 18(a,b)). Such pendants imitating coins are known to have been struck in Lund during the early part of the eleventh century (Märcher, 2010, p. 203, Kristensen 2009, p. 5). The proposed eleventh-century date of this part of the cemetery is considerably earlier than that previously suggested for the oldest church in Copenhagen (see above). The suggested date, together with different orientation of the oldest graves, is a strong indication of an earlier church, rebuilt already in the twelfth century in stone and brick. It seems very likely that the older church was a wooden church, although no archaeological remains of one have yet been found. Observations of oak posts found within the stone foundation discovered in 1906 are due to their placement among the stones, more likely to belong to the construction of the stone church itself (Jensen and Dahlström, 2009, p. 15).

A date in the eleventh century for the oldest Sankt Clemens church has implications for who could have been behind its construction. If the second part of the twelfth century had seemed likely, Bishop Absalon would naturally be a plausible candidate; but if the eleventh century is more likely following the results of the 2008 excavation, that would suggest a different scenario. It would mean that the construction of the wooden church would have been one of the earliest activities in Copenhagen, and that it should be seen in relation to the very first step in the town formation process. The general history of the churches of Sankt Clemens has been investigated by various scholars (i.e. Cinthio, 1968, Crawford, 2006). There were 21 known Sankt Clemens churches in the Danish territory of Canute the Great (king of Denmark 1018–1035), as well as 40 in the south-east of England, mostly in the Danelagen area. The large number of Danish Sankt Clemens churches is clearly a consequence of the connection between Denmark and England stemming from the Viking Age, which is also seen in the influence from England in the early phase of the Christianisation of Scandinavia. The Sankt Clemens churches in Denmark are believed to have been instigated by the king or members of his retinue in the eleventh century, and there are several examples of the churches being situated in close proximity to a royal manor, for example in Roskilde and Horsens (Nyborg, 2004, p. 127ff). What we know about the Sankt Clemens churches makes an eleventh-century

Figure 19. (a) Plan of the burials, including burial id's, found at the excavation at Rådhuspladsen in 2011, together with the presumed border ditch to the south. Reconstructed orientation of the ditch is shown with dashed lines. (b) Plan of the burials and border ditch from 2011 seen together with burials recorded so far (February 2018) from ongoing excavation (KBM 4286) of what is interpreted as another part of the same cemetery.

Figure 20. Grave of a child with an estimated age of five (G 117, skeleton id: SB8025). Traces of a decayed coffin are seen around the body. The grave had been truncated from above by an infant's grave and had a piece of human bone found in its fill, indicating the presence of yet older graves. Photo: Museum of Copenhagen 2011.

date for the Copenhagen church even more likely, and as a consequence, also for the early town settlement. As discussed above, if we are to look for a royal manor in eleventh-century Copenhagen, the enclosed area immediately to the east of Sankt Clemens church may be where we should turn. The dating of the construction phase as well as the disuse phase of the horseshoe-shaped structure would support this theory.

The cemetery at Rådhuspladsen

Our understanding of the early church topography of Copenhagen changed profoundly in 2011 when the remains of another cemetery were discovered at the north-west corner of Rådhuspladsen. The findings were a complete surprise, as there was no previous knowledge of this cemetery either in written sources or in archaeological records. A total of 17 *in situ* graves, most of which were severely truncated, were seen (see Figure 19(a,b)) . The burials were placed evenly distanced from one another, revealing a structure and organisation of the cemetery rather like that of a permanent parish cemetery (as opposed to a more temporary burial ground such as a plague cemetery). In some instances the burials were on two stratigraphical levels, this also pointing to more than a very short-lived feature. In 10 graves *in situ* skeletons were found, and in most of the graves there were also disarticulated bones. The individuals were women, men and children, the youngest individual among them a 3-month-old infant, while the oldest was a man of 50–60 years of age (see Figure 20). Nothing particular was noted about their health condition, with the exception perhaps of two individuals who were unusually tall – 170 cm for a female and 179 cm for a male. With all the bone material seen together, the skeletal material made up a total MNI (Minimal Number of Individuals) of 21 (Lynnerup, 2011). To the south of the graves was a ditch, interpreted as a boundary ditch and AMS-dated to AD 1025–1210 (Cal 2 sigma) and AD 980–1155 (Cal 2 sigma; see Table 2, Lyne and Dahlström, 2015). AMS dating of the coffin wood and the skeletal material confirmed the suspicions of an early date, and a *weighted mean* of the calibrated AMS dates from the skeletons gave the result AD 1026–1155 (Cal 2 sigma; Kanstrup and Heinemeier, 2013).

The organisation of the graves in the very small area excavated, about 35 m^2, showed that the graves continued towards the west, east, and north, and that grave density increased towards the north. This, together with the possible border ditch, was a strong indication that this was just the outer part of a possibly considerably larger burial ground with its centre towards the north (Dahlström, 2014, p. 140f). In addition to this, parts of another burial had earlier in the excavation been documented 20 m to the east of the cemetery. At that time, a pair of shin bones were collected from a very small trench, 0.5 × 0.5 m and c. 1.5 m deep (see Figure 11). Since no knowledge of the cemetery existed at the time of the find, it was considered as being without further context. This was probably the reason why these bones were later lost, and they were unfortunately not AMS-dated. Yet another observation of human bones in the immediate area supports the theory of a substantially larger cemetery. In the Museum of Copenhagen's archive there is a note of human

Table 2. Radiocarbon sample from Sankt Clemens and Rådhuspladsen. AAR samples are analysed at Aarhus AMS Centre, Aarhus University, Denmark and LuS samples are analysed at SSAMS Radiocarbon dating laboratory, University of Lund, Sweden.

Lab ID	Material	$\delta^{13}C$ (‰ VPDB)	$\delta^{15}N$ (‰ VPDB)	F_{marine} (%)	^{14}C Age (^{14}C years BP)	Calibrated age, AD, (unmodelled) 68.2% conf. interval (1σ)	68.2% conf. interval (2σ)	Calibrated age, AD, (modelled) 68.2% conf. interval (1σ)	68.2% conf. interval (2σ)	A
St. Clemens (start)								1005–1099 [68.2%]	940–1129 [95.4%]	
AAR-25,565	Human	−19.6	12.9	4%	951 ± 34	1037–1057 [13.8%] 1077–1154 [54.4%]	1021–1183 [95.4%]	1045–1055 [7.4%] 1063–1123 [60.8%]	1028–1144 [95.4%]	107.0%
AAR-25,556	Human	−19.7	11.0	3%	1097 ± 26	985–1021 [68.2%]	903–921 [4.8%] 951–1033 [90.6%]	985–1022 [68.2%]	903–921 [4.5%] 950–1034 [90.9%]	99.5%
AAR-25,564	Human	−19.1	12.8	9%	1006 ± 37	993–1047 [48.5%] 1095–1121 [16.8%] 1142–1147 [2.8%]	981–1155 [95.4%]	1101–1128 [37.6%] 1133–1153 [30.6%]	1040–1052 [2.0%] 1068–1164 [93.4%]	70.5%
AAR-25,562	Human	−17.7	14.6	23%	909 ± 28	1054–1081 [18.3%] 1152–1212 [49.9%]	1042–1110 [29.9%] 1116–1222 [65.5%]	1155–1206 [68.2%]	1116–1245 [95.4%]	112.0%
AAR-25,561	Human	−19.2	11.5	8%	1009 ± 26	1018–1049 [38.3%] 1091–1122 [25.3%] 1141–1148 [4.7%]	996–1069 [49.8%] 1076–1154 [45.6%]	1028–1038 [7.2%] 1088–1127 [45.8%] 1136–1151 [15.2%]	1017–1056 [20.3%] 1071–1157 [75.1%]	86.2%
AAR-25,560	Human	−19.3	12.2	7%	789 ± 36	1225–1235 [11.5%] 1242–1280 [56.7%]	1192–1294 [95.4%]	1218–1258 [68.2%]	1183–1274 [95.4%]	82.1%
AAR-25,559	Human	−18.8	12.9	12%	831 ± 29	1224–1267 [68.2%]	1191–1282 [95.4%]	1244–1276 [68.2%]	1224–1283 [95.4%]	105.3%
AAR-25,558	Human	−19.6	12.9	4%	1007 ± 35	995–1047 [48.3%] 1095–1120 [17.5%] 1143–1147 [2.4%]	986–1155 [95.4%]	1028–1034 [3.7%] 1087–1152 [64.5%]	1014–1159 [95.4%]	83.8%
AAR-25,557	Human	−18.5	12.9	15%	972 ± 36	1061–1080 [8.0%] 1127–1137 [4.4%] 1150–1223 [55.8%]	1048–1110 [19.9%] 1115–1253 [75.5%]			
AAR-25,563	Human	−17.3	13.4	28%	931 ± 30	1162–1227 [68.2%]	1056–1082 [4.0%] 1126–1138 [1.6%] 1150–1265 [89.7%]	1179–1242 [68.2%]	1159–1263 [95.4%]	105.2%
AAR-25,555	Human	−19.3	12.1	7%	699 ± 30	1283–1311 [38.1%] 1363–1386 [30.1%]	1275–1327 [51.4%] 1346–1394 [44.0%]	1278–1305 [68.2%]	1264–1326 [92.1%] 1361–1381 [3.3%]	101.7%
St. Clemens (end)								1283–1336 [68.2%]	1271–1416 [95.4%]	
LuS-10,810 (90)	Soil				1115 ± 35	894–976 [68.2%]	778–791 [2.0%] 827–841 [1.6%] 864–1016 [91.8%]	894–975 [68.2%]	778–791 [1.8%] 811–818 [0.7%] 825–842 [1.8%] 863–1015 [91.1%]	
Rådhuspladsen (start)								1016–1036 [68.2%]	995–1044 [90.5%] 1090–1113 [4.9%]	
LuS-10,400 (35)	Human	−18.0	13.3	20%	1045 ± 50	1018–1060 [26.9%] 1079–1152 [41.3%]	978–1187 [95.4%]	1024–1042 [68.2%]	1013–1060 [88.0%] 1091–1124 [7.4%]	136.2%
LuS-10,401 (117)	Human	−19.5	11.0	5%	1030 ± 50	975–1048 [52.4%] 1091–1122 [13.1%] 1141 – 1148 [2.7%]	900–924 [4.8%] 946–1157 [90.6%]	1021–1039 [68.2%]	1007–1050 [89.5%] 1094–1119 [5.9%]	139.0%
LuS-10,405 (72)	Human	−17.4	15.5	26%	1080 ± 50	995–1059 [38.9%] 1081–1126 [23.6%] 1138–1150 [5.7%]	910–915 [0.4%] 964–1181 [95.0%]	1026–1045 [68.2%]	1017–1062 [87.6%] 1093–1126 [7.8%]	146.9%
LuS-10,404 (24–216,231)	Human	−18.3	12.5	17%	1045 ± 50	997–1056 [35.1%] 1081–1128 [25.7%] 1136–1151 [7.4%]	967–1185 [95.4%]	1023–1040 [68.2%]	1011–1055 [88.7%] 1090–1120 [6.7%]	148.0%
LuS-10,399 (89)	Human	−19.3	10.8	7%	995 ± 50	1019–1055 [23.7%] 1080–1153 [44.5%]	981–1189 [95.4%]	1023–1040 [68.2%]	1012–1055 [88.5%] 1089–1120 [6.9%]	132.3%

(Continued)

Table 2. (Continued).

Lab ID	Material	δ13C (‰ VPDB)	δ15N (‰ VPDB)	Fmarine (%)	14C Age (14C years BP)	Calibrated age, AD, (unmodelled)		Calibrated age, AD, (modelled)		A
						68.2% conf. interval (1σ)	68.2% conf. interval (2σ)	68.2% conf. interval (1σ)	68.2% conf. interval (2σ)	
LuS-10,403 (23)	Human	−18.7	13.5	13%	1040 ± 50	990–1053 [41.1%] 1084–1125 [21.5%] 1138–1150 [5.5%]	903–921 [1.7%] 954–1166 [93.7%]	1027–1046 [68.2%]	1021–1065 [86.2%] 1090–1130 [9.2%]	138.3%
LuS-10,398 (68)	Human	−18.6	13.0	14%	1065 ± 50	971–1050 [54.4%] 1090–1122 [12.0%] 1142–1147 [1.8%]	899–926 [5.4%] 943–1156 [90.0%]	1023–1042 [68.2%]	1010–1055 [88.6%] 1094–1122 [6.8%]	129.3%
LuS-10,457 (13–216,240)	Human	−18.8	12.3	12%	1070 ± 45	906–917 [3.7%] 966–1045 [63.2%] 1111–1115 [1.3%]	895–1056 [81.6%] 1080–1152 [13.8%]	1021–1039 [68.2%]	1008–1049 [89.7%] 1096–1118 [5.7%]	104.5%
LuS-10,401 (13–216,228)	Human	−18.7	11.9	13%	990 ± 50	1033–1070 [21.2%] 1076–1153 [47.0%]	1013–1212 [95.4%]	1026–1046 [68.2%]	1019–1064 [87.8%] 1095–1126 [7.6%]	108.8%
LuS-10,397 (29)	Human	−18.8	12.0	12%	1010 ± 50	1021–1056 [23.5%] 1079–1152 [44.7%]	984–1189 [95.4%]	1024–1042 [68.2%]	1014–1061 [87.9%] 1091–1124 [7.5%]	129.5%
LuS-10,458 (180–216,242)	Human	−19.4	12.0	6%	985 ± 45	1022–1054 [21.8%] 1081–1152 [46.4%]	989–1170 [94.9%] 1177–1182 [0.5%]	1025–1042 [68.2%]	1015–1060 [87.9%] 1091–1124 [7.5%]	125.2%
LuS-10,459 (180–216,243)	Human	−19.0	10.0	10%	965 ± 45	1045–1154 [68.2%]	1022–1209 [95.4%]	1025–1043 [68.2%]	1017–1065 [88.0%] 1090 – 1124 [7.4%]	89.0%
LuS-10,455 (476/180)	Human	−17.3	13.7	27%	1075 ± 45	1017–1065 [32.3%] 1079–1128 [28.7%] 1137–1151 [7.2%]	979–1168 [95.4%]	1024–1042 [68.2%]	1013–1059 [88.2%] 1092–1123 [7.2%]	143.1%
LuS-10,464 (88)	Human	−18.9	12.7	11%	1005 ± 45	1022–1055 [22.9%] 1080–1152 [45.3%]	988–1171 [95.0%] 1178–1181 [0.4%]	1025–1042 [68.2%]	1015–1060 [87.9%] 1091–1124 [7.5%]	127.5%
LuS-10,463 (127	Human	−18.9	12.9	11%	990 ± 45	1029–1056 [18.4%] 1079–1153 [49.8%]	998–1191 [95.4%]	1025–1042 [68.2%]	1016–1062 [87.8%] 1090–1124 [7.6%]	110.0%
LuS-10,456 (122)	Human	−19.1	12.3	9%	1015 ± 40	1014–1053 [32.1%] 1083–1126 [28.0%] 1137–1151 [8.1%]	989–1158 [95.4%]	1024–1041 [68.2%]	1013–1056 [88.1%] 1093–1123 [7.3%]	147.6%
LuS-10,819 (22–10,353)	Non specified				995 ± 35	993–1045 [50.5%] 1097–1120 [15.4%] 1143–1147 [2.3%]	983–1059 [58.7%] 1068–1155 [36.7%]	1023–1040 [68.2%]	1013–1052 [88.6%] 1096–1121 [6.8%]	143.9%
LuS-11,074 (22–241,748)	Pig bone				920 ± 40	1043–1107 [41.6%] 1118–1159 [26.6%]	1026–1206 [95.4%]	1025–1044 [68.2%]	1018–1066 [88.2%] 1091–1124 [7.2%]	77.9%
Rådhuspladsen (end)								1030–1051 [68.2%]	1022–1072 [85.3%] 1102–1154 [10.1%]	

All δ13C and δ15N values are measured at Aarhus AMS Centre, Aarhus University, Denmark. Radiocarbon ages are reported as conventional 14C dates in 14C yr BP based on the measured 14C/12C ratio corrected for the natural isotopic fractionation by normalising the result to the standard δ13C value of −25‰ VPDB (Stuiver and Polach, 1977). The 14C age of the humans are reservoir corrected using the measured δ13C values with a terrestrial and marine isotopic endpoints of δ13Cterrestrial = −20‰ and δ13Cmarine = −10‰, respectively. The resulting marine diet fraction is shown as Fmarine with an estimated error of 4%. The soil sample is calibrated with IntCal13 (Reimer et al., 2013) using OxCal 4.3 (Bronk Ramsey, 2009). The humans are calibrated using the mixed curve approach with the estimated Fmarine to determine the mixture between the atmospheric (IntCal13) and the marine (Marine13) calibration curves using OxCal 4.3. A Bayesian model (implemented with OxCal using the sequence method) is used to estimate the start and end date for each locality constrained using stratigraphical information (see Figure 21).

bones being found in 1954 outside the building Helmers Hus, about 30 m north-east of the graves found in 2011. At the time it was not known if the bones were old or recent, so the police had been contacted (Museum of Copenhagen archive, unnumbered case, Rådhuspladsen 1954, Lyne and Dahlström, 2015, p. 28). It was later confirmed through contact with the police that there was no record of this resulting in a police case. Thus the bones located outside Helmers Hus' were probably of older date, and it seems a likely possibility that these bones were connected to the cemetery found in 2011.

The observations gathered surrounding the burials at the edge of Rådhuspladsen strongly indicate that these should be seen as the southern edge of a larger cemetery, most likely connected to a church which was taken out of use early on and was not mentioned in written sources. The presumed church would have been placed to the north, which would thus extend the early settlement area of Copenhagen even further. Also, encountering two stratigraphical levels (plus disarticulated bones, suggesting additional destroyed burials) at the edge of the cemetery suggests that a denser use might be imagined further in towards the presumed centre. Very recent events have confirmed the theory of the cemetery extending towards the north and the north-east. At a presently ongoing excavation (February 2018; KBM 4286) in the northernmost part of Rådhuspladsen, close to Helmers Hus, the cuts for c. 25 graves have so far been uncovered. It is clear that they are part of the same cemetery as the one excavated in 2011. If the same grave density and stratigraphic circumstances are to be expected for the new graves, there could be as many as 50 new graves to add to the 17 found in 2011.

With the information we have so far about this cemetery, it could have been a quite substantial one with many burials. The early date, combined with the fact that the cemetery (and the presumed church) seem to have been taken out of use before long, speak for it having been a wooden church, built on private initiative. Eleventh-century Northern Europe was characterised by proprietary churches, built by lords. Many of these churches were taken out of use once the parish system was fully established, one to two hundred years later. These early churches functioned as 'neighbourhood churches' or 'proto-parish' churches, gathering the people who in some way were connected to the church builder (Nyborg, 2004, p. 137f, Wood, 2008). We would

like to interpret the Rådhuspladsen church as such a proprietary church. It is likely, that a manor belonging to the church builder was located close to the cemetery. No archaeological evidence of such a feature has yet been found, but a logical place to search for it would be further to the west, north or north-east.

Discussing the background to the church, the Sankt Olav church of 1261, mentioned earlier, comes to mind. Sankt Olav churches are common in Scandinavia, and often date from the eleventh century. However, if the Rådhuspladsen church was the Sankt Olav church, either it was moved already in the twelfth century, or the extent of the cemetery had been made smaller, or changed. As we will see below, none of the existing AMS-dated graves are as young as the thirteenth century.

Chronological discussion

If Copenhagen seems to have had two churches already in the eleventh century, this has implications for the discussion of who played a role in the early development of the town, the type of place that developed, and the groups of people who might have lived there. The dates for the Sankt Clemens church and the presumed church north of Rådhuspladsen so far suggest that they were at least partly contemporary. As a way to narrow the dating spans for the two cemeteries, more radiocarbon samples, including stable isotope analyses and Bayesian statistic modelling of the data, have been undertaken. The main objectives of the analyses were to determine which cemetery was the oldest and if they existed at the same time. No AMS dates existed prior to this for the Sankt Clemens material, and for the Rådhuspladsen material additional statistical modelling work was required to interpret the isotopic information, correcting the 14C ages by taking the reservoir effect into consideration, because of fish consumption by the sampled individuals as indicated by the stable isotope values. In the Bayesian modelling, the stratigraphic position of the graves is considered as an additional (relative) dating information, which is put into the models to help constrain the modelled age range (Bronk Ramsey, 2009).

For Sankt Clemens cemetery, a total of ten skeletons belonging to three individual, stratigraphical strands were sampled (see Figure 21(a,c)). Each of
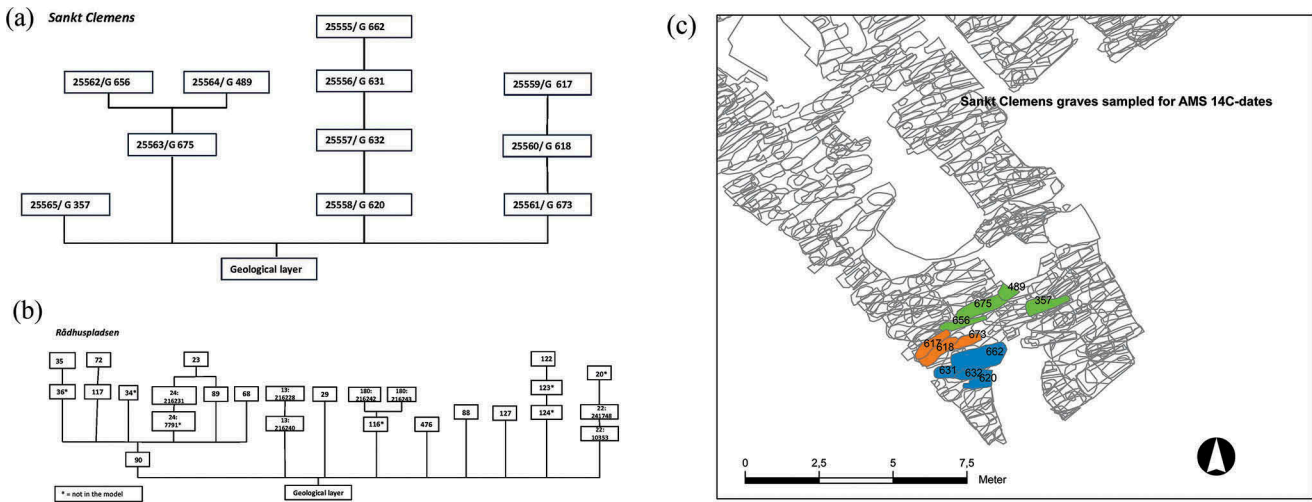
Figure 21. (a) Harris matrix showing the stratigraphical positions and relations between the features included in the St Clemens model shown in Figure 21. (b) Harris matrix showing the stratigraphical positions and relations between the features included in the Rådhuspladsen model shown in Figure 22. (c) Close-up of part of Sankt Clemens cemetery with sampled graves marked. See Figure 19 a for id:s of the sampled graves from Rådhuspladsen.

these strands consisted of three or four skeletons with direct physical, stratigraphical relations to the others in the same strand. One sample is a singular unit with no direct stratigraphical relations to the other graves. For the Rådhuspladsen cemetery, nine *in situ* skeletons in up to two stratigraphical levels, plus disarticulated bones found in one of the graves were put into the model (Figure 21(b)). The disarticulated bones were found in the grave fill and in the model considered as belonging to an older, disturbed grave. In addition to the skeletal material, charcoal (unspec. species) from the cultural layer which the graves were dug through was put into the model as being older than eight of the graves. Lastly, human bone and animal bone from ditches directly related to the cemetery are also included.

After Bayesian modelling of the data, the usage period for the Sankt Clemens cemetery seems to have started between 940 and 1129 (2 sigma) while all graves from the Rådhuspladsen cemetery in the model are dated to between 1010 and 1060 (see Figure 22 and Table 2).

The narrow date span suggested by the statistical model for Rådhuspladsen requires some explanation. The reason for the statistical model to choose the earliest possible date for a large part of the graves is due to the information put into the model, which says that all the graves belong to a continuous usage phase, but graves with a direct physical, stratigraphical relation

to older or younger graves are younger or older than these. The individual dates for graves which have a stratigraphic relation are similar, which restrains the date in the specific sub-sequence of those graves and consequently (since they are considered belonging to a continuous usage phase) affects the whole model. This is also the reason for the very tight date range of c. 50 years for all graves. Moreover, the calibration curve for the eleventh century is steep, and enables a short dating span under the right circumstances (Reimer *et al.*, 2013).

The Sankt Clemens model presented here is much more ambiguous. This has several reasons. First, the amount of data used to model the dates is much smaller. A further complication is, that the sample with the oldest date, 25,557, was not the oldest in its stratigraphical sequence, but second after grave 620, here represented by sample 25,558. The stratigraphy and documentation from the excavation has been checked for possible mistakes, but the interpretation seems solid. As a result, sample 25,557 was taken out of the model, and is not regarded when dating the onset of the cemetery, but is seen as an outlier.

According to the Bayesian modelling of the two cemetery materials, the onset of the two cemeteries could be seen as almost parallel in time, happening in the first part of the eleventh century, even if the dates from St Clemens are much more uncertain. Judging only from the current statistical model, it is
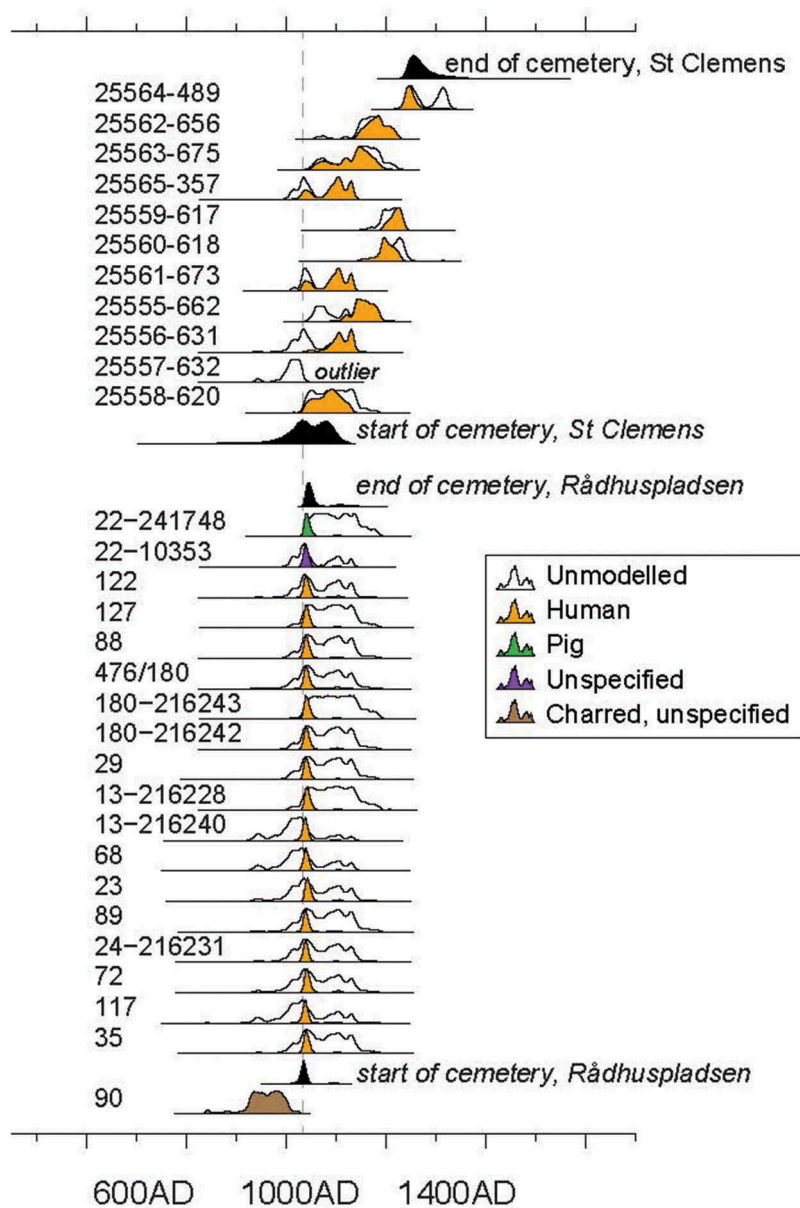
Figure 22. 14C models of the skeletal material from Rådhuspladsen and Sankt Clemens. See note 3 and Table 2 for more information. Colour signatures can be seen in the web version of the article.

more likely that the Rådhuspladsen cemetery came first. The alternatives will be further discussed later in the text. Either way the dates suggested by the model, at least for Rådhuspladsen, are surprisingly early. In the process of modelling the data, the robustness of the models have been tested and uncertain elements have been taken out. For instance, the initial idea of treating disarticulated bones found in the grave fill of an *in situ* grave as being older, was abandoned for Rådhuspladsen since this specific stratigraphical relation seemed to influence the whole model in a disproportional way. We

have also tested the model with and without the cemetery soil (90) as an older restrain, but did not found the difference vital for the model. To eliminate the 'weak links' we chose in the end to present the model without the cemetery soil and without a restrain of the disarticulated bones as being older than the *in situ* skeleton. For the Sankt Clemens model, the situation with sample 25,557 as described above resulted in a less precise, but more solid model. The models presented here we believe is the best possible ones, with current available data and knowledge. This does not mean that the dates will

not change with more information put into the models – something which hopefully will be tried on a later point. For Sankt Clemens, it seems vital to include more samples to reach a tighter date range. It will also be an important task to date the graves currently being excavated at Rådhuspladsen, to see if they align with the present early dates, or if they change the picture.

A relevant question to ask now is of course – how does this dating information relate to the rest of the archaeological record from the early medieval period? As mentioned above, the Aethelred coin imitations were struck in the first half of the eleventh century, something adding to the possibility of an early onset of the Sankt Clemens cemetery. At the Rådhuspladsen excavation in 2011–2012, a few finds with a clear eleventh-century dating were recovered, foremost a number of combs of types dated to the tenth to eleventh century, but also a fragment of a finger ring made of jet-stone or jet-like material, a rare find mostly belonging to Viking Age contexts (Gjøstein Resi, 2011, Dahlström and Ashby, 2015). The pottery material found at the Metro Cityring excavation at Rådhuspladsen could, based on the rim forms present, indicate settlement activity from 1000–1150 (Langkilde, 2015, p. 16). The early dating based on rim forms are however not conclusive, but needs to be put in context with other dating criteria. The relative low fragmentation of sherds combined with the presence of contexts containing exclusively

Baltic Ware, strongly indicate actual *on site* activity, as opposed to redeposited and residual waste material (ibid, p. 17). It should also be mentioned that the same type of modelling for radiocarbon dates from one of the other excavated areas at Rådhuspladsen shows a similar date (from c. 1020) for the earliest phase of settlement activity. The processing of this data is still ongoing. The method of Bayesian modelling of radiocarbon data and what the results mean for our understanding of early Copenhagen will be assessed more in depth in coming research.[1]

The result from the modelling of the two cemetery materials certainly opens up for some interesting scenarios concerning the oldest settlement. Even without Bayesian modelling, the radiocarbon dates seen together with archaeological evidence securely place both cemeteries in the period before 1150. The probability of two contemporary churches in the early medieval period has consequences for how we should understand Copenhagen in its earliest phase. We will return to this question below.

Town activities and town people

The Metro Cityring excavations at Rådhuspladsen have added considerably to what we know of the economic activities in the early medieval town. Apart from household activities related to food preparation and construction/repair, primarily blacksmithing, but also comb-making, tanning and

Figure 23. Profile of clay-lined pits SG-366 (younger) and SG-370 (older) encountered at the Metro Cityring excavation at Kongens Nytorv (KBM 3829). Photo: Museum of Copenhagen.

textile working have been established (Lyne and Dahlström, 2015). At Kongens Nytorv, remains of fish handling and blacksmithing have been encountered, but dating mostly to the early thirteenth century (Steineke and Jensen, 2017). The clay-lined pits (*lerbottnar*, see Figure 23) discovered both in 1999 and in 2010 at Kongens Nytorv represent a phase in the sorting or processing of fish before selling it on the market. These feature types are known from coastal towns in Scania, as well as Dragør, south of Copenhagen, and thus emphasise similarities in the case of Copenhagen to other Øresund and Scanian towns (Ersgård, 2006, p. 48ff, Mårald, 2006). The shallow pits have been AMS-dated to the late twelfth to early thirteenth century, and were found in an area with workshop remains, close to the seashore (Steineke and Jensen, 2017, p. 127ff). In one of these, two whole herrings were still preserved, their tails tied together (Figure 24). Other features in the vicinity – a pit house and a few pits containing deposits with fish bones – were seen to be related to fish-preparing activities. The fish handling seems to have been separated from the salty marsh area closest to the shore by boundary ditches (ibid). This is something also seen in Scanian towns such as Malmö (Larsson and Balic, 2006, p.124f).

At Rådhuspladsen, on the other side of the extended town area, no such features clearly linked to fish handling on a large scale were encountered, although large quantities of fish bones were recovered from some of the pits (Enghoff, 2015, p. 107ff, Lyne and Dahlström, 2015). In some cases, it could be argued that their presence might have been due to some special function. As nothing in the osteological analyses of early medieval features points to fish-processing, the large quantities of fish bones from many species could be seen merely as evidence of a variety of fish being on the menu of the Copenhageners. From the analyses we know that at least 22 species of fish were found in the early deposits, of which the absolute majority were salt-water fish or fish found in brackish water. Herring, gadids and flatfish were dominant (Enghoff, 2015, p. 107). To conclude, though it is likely that fishing was an important economic activity for the early town population, archaeological remains of large-scale fish handling on a professional basis are still lacking.

The remains from Kongens Nytorv, even if on a small scale, have given the first solid evidence of fish handling in what is now central Copenhagen. Some of the early fish handling may have taken place outside Havn: there is room for discussion of whether the town was mainly used for the trading of fish. The island of Amager, just opposite the early settlement, could have had this function. We know that Dragør was established as a fish market by the fourteenth century, but it is likely that the Copenhageners also used places at Amager in the centuries leading up to its establishment.

As discussed previously, the name Copenhagen is in itself a resource for identifying town activities. 'Købmannahafn' should logically refer to some type of trading activity, which speaks for the original function of the site being a trading centre. The fact that the town is sometimes called only Havn is somewhat puzzling, but probably points to its early functions as a place for landing activities. As with the fishing evidence, there is nothing in the

Figure 24. Herrings found in one of the clay-lined pits at Kongens Nytorv in 2011 (KBM 3829). Photo: Museum of Copenhagen.

archaeological material to indicate Købmannahafn as a centre for long-distance trade or trade with specialised goods before the thirteenth century.

Some rare examples of early finds of import in Copenhagen include an offcut from walrus tusk, a finger-ring of jet, and a few sherds of Pingsdorf ware (Lyne and Dahlström, 2015, Whatley and Hansen 2016). Apart from this, imported pottery is scarce. The evidence – or lack of evidence – points to eleventh/twelfth-century Havn being a trading place of local character, where everyday goods were exchanged. This scenario places Copenhagen within the general course of development of Danish trading. If luxury goods were frequently traded in the towns of the eleventh century, in the twelfth century there was a general shift to goods of everyday character – goods that may not leave many traces in the archaeological record (Kristensen and Poulsen, 2016, p. 91f). The types of goods that may have been traded are closely linked to the types of crafts present in the town. Judging from the findings from the Metro Cityring excavations, they could have been products such as fish, leather and skins, iron objects, combs, and livestock.

Before the Metro Cityring excavations, almost nothing was known in terms of archaeological source material about production carried out in the early town. At this point we know more, but the information is still fragmentary, mostly due to the lack of in situ workshops. On the Rådhuspladsen, extensive remains of iron-working dating from the late eleventh century to the abandonment of the area in the fourteenth century have been found in the whole area south of the road leading east–west and continuing into present-day Vestergade. Later in the medieval period, Vestergade is known as Smedegade (Smith's street; Fabricius, 2006, p. 51) and as an area where blacksmiths lived (Kristensen and Poulsen, 2016, p. 228). That blacksmithing was an important activity is underlined by early medieval remains of iron-working on the Sankt Clemens cemetery in 2008 (Jensen and Dahlström, 2009, p. 61). The iron-working at Rådhuspladsen up to c. 1150 was medium or small scale, producing everyday objects such as nails and fittings. A total of 50 kg of slag was collected from the period up to c. 1150, plus hammer scales, slag spheres, and the remains of demolished furnace walls (Jouttijärvi, 2014). In this first phase, mainly secondary smithing was performed: no specialised skills were required for this type of work. However, already by c.

1150 the scale of activity increases, and specialised smithing as well as primary smithing becomes more common (ibid., Lyne and Dahlström, 2015). This is interesting, because the move of primary smithing to the towns could point to town authorities wanting more control over the iron production. Instead of the original custom of having the iron initially prepared close to the source, which was more practical, the raw iron was transported to the towns for processing (Andersson, 2015). Another probable aspect of this phenomenon was increasing specialisation among craftsmen, the town smiths probably being more skilled. The area of Rådhuspladsen and Vestergade probably specialised in blacksmithing in view of its location, which was probably towards the outskirts of the town. The area was, however, not used solely for iron-working, as the workshop remains are mixed with those of household activities and other workshop activity. Primary smithing in the thirteenth and fourteenth centuries has also been found on the other edge of the town, in the remains of a smithy just inside the high medieval rampart at Kongen Nytorv (Steineke and Jensen, 2017).

Apart from blacksmithing, workshop residue from comb-making and possibly tanning has been found in deposits in this period at Rådhuspladsen. Semi-manufactures, bone and antler offcuts, and other bone residue were thrown away in refuse pits, together with household refuse and slag material. Skinning marks on toe bones from cattle, metatarsi and metacarpi, found in refuse deposits are indicative of a tannery workshop close by (Enghoff, 2015, p. 109f, 114, 122). The remains were on a quite modest scale. The details of how the different craft and production activities and household activities were distributed in the area are not known at this point, but preliminary studies indicate that there may have been a difference, with more household remains deposited in the eastern part, closer to the town, and more workshop waste, primarily iron-working residue, towards the west, further out on the periphery. Yet the material clearly indicates an environment with different sorts of craft production being undertaken close to the living quarters. This is typical of early phases in towns, and could also be a sign of craft production that is not yet performed on a very specialised level (Carelli, 2001, p. 141f).

There is little, if any, evidence of craft production in other parts of Copenhagen at this time. This is

probably due to the lack of large and coherent excavation areas, combined with differing prioritisations in earlier years' excavations, which perhaps may have been more likely to discard finds such as worked bone waste or iron slag.

We should not forget that farming and animal husbandry certainly played a role in the townspeople's economy. It is well known from other towns of this period that agricultural activity also took place inside the town, and that the built environment was characterised by large plots without high building density (Carelli, 2001, p. 106ff). The fragmentary remains of buildings and other plot activity in Copenhagen confirm this settlement pattern (Lyne and Dahlström, 2015). Archaeobotanical material from Lille Kirkestræde, east of Højbro Plads, found in the same layers as wood dated by dendrochronology to around AD 1220 (KBM 775, NNU rapport nr 18, 1992, AUD 1993:303) showed this area to have been used for grazing for quite a long time. The types of plants identified made it clear that the area, even if it was marshy, had been 'domesticated' by grazing animals affecting the flora (Kristiansen, 1999b, Skaarup, 1999b, p. 74f). It seems likely that the marshy areas close to the water, especially in the eastern part of the town area, were used for this purpose.

The people of early Copenhagen occupied themselves with trades such as blacksmithing, fishing, comb-making, leather-working and, most likely, others of which we do not have traces. Sailing the strait for different purposes could have been a semi-professional occupation. Farming and animal husbandry probably were important parts of their economy, as the sale of various different foods and drinks may also have been, as well as putting up lodgers.

Town formation and development until AD 1200: the birth of a medieval town

The development towards the medieval town of Copenhagen seems to have started in the late Viking Age. The name 'Købmannahafn' is related to the history of købinger/köpingar in eastern Denmark, sites of mostly local and regional trade known in the tenth/eleventh century. The topographical location of Copenhagen, on the coast in an area with rich agricultural assets, is also concordant with other købinger. The surrounding countryside displays

wealth, with numerous treasure finds from the tenth to twelfth centuries, and in the written sources, some of the villages around Copenhagen are mentioned in the eleventh century. The donation granted to Bishop Absalon by the King before 1186 comprised a good part of the manors in the area surrounding Copenhagen, in addition to the town itself. The gift is an indication of the value of the land around Copenhagen, but possibly also of a long-standing coherence between the town and the manors. It is likely that the manors comprising the gift had been in the royal possession for some time previously, and that they had a history going back to the Late Iron Age. Of special interest is the royal manor and administrative centre of Borgby, on Amager. Viewed together with the aristocratic church at Tårnby and in Købmannahafn, it shows similarities with the Borgeby/Löddeköpinge/Lomma area of western Scania. At a general level, parallels like these set the early development of Købmannahafn against a larger context relating to the political and economic processes in play in eastern Denmark in the eleventh century. The new archaeological evidence at hand draws our attention to the earliest mention of Havn. The above-mentioned story in the *Knýtlingasaga*, of King Sven being attacked outside a place called Höfn (Havn) on Zealand, should at this point perhaps be reconsidered and given more credit than usual. It may be taken as an indication that a settlement named Havn existed as early as the first half of the eleventh century.

Eleventh century

Taking all the archaeological and historical information into account, how can we imagine Købmannahafn in the eleventh century? Who lived there, and what did they occupy themselves with? Where was the first settlement located, and why were there at one point two churches in this small settlement?

The archaeological findings tell the story of a settlement extending at least from the Rådhuspladsen in the west to Gammeltorv in the east (Figure 25(a)). Apart from the newly discovered remains at Rådhuspladsen, earlier observations at Mikkel Bryggers Gade and Gammeltorv, with clay floors, pits, and wells older than the first late eleventh/early twelfth-century enclosure, add to the picture of the extent of the first settlement. The
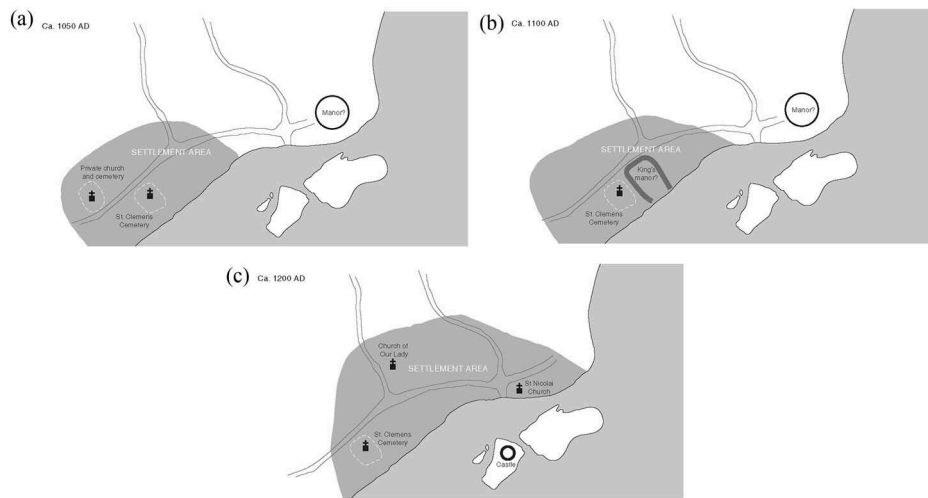
Figure 25. (a–c.) Our interpretation of the three main development phases of Copenhagen until c. 1200. Ill: Hanna Dahlström and Ea Rasmussen, Moesgaard Museum.

remains of a cemetery north of Rådhuspladsen belonging to the first phase of activity open the possibility that the settlement extended further to north and west. By means of AMS dates of the graves belonging to the cemetery it can be dated to the early-to-mid-eleventh century. Taking the indications of the very early date into consideration, it is a possibility that the cemetery was not connected to a church. This is seen in eleventh-century Sigtuna, Sweden, where several burial grounds were placed on the outskirts of the town. However, since the political situation in Denmark and Sweden was different at the time, with a much stronger royal influence in Denmark, it is difficult to compare something like early church topography which is tightly linked to the organisation of the central authorities (Tesch, 2014, p. 107ff). We find it after all more likely that the burials have belonged to a church that has not yet been discovered.

The buried individuals were likely people living in the first settlement of Havn. The cemetery could also have served surrounding rural areas, especially at this possibly early date when not all areas had churches. The ongoing excavation revealing more graves c. 20 m north-west from the graves discovered in 2011, proves that the cemetery has been of a good size, which is another indication of a permanent settlement of some proportion, or an indication of serving a wider geographic area. The graves containing women, men and children indicate a demography fitting a 'normal' population rather than speaking of groups of people like traders or fishermen visiting temporarily.

As discussed in relation to the dating models, the graves belonging to the church of St Clemens could also be placed in the early-to-mid-eleventh century. The possible early date produced by the 14C-modelling can be said to be corroborated by the find of a coin imitation whose original was in production between 997 and 1003. If we choose to rely on the early date alternative shown by the 14C-dates, this means a very early settlement with two cemeteries (and churches) some time in the first half of the eleventh century.

The other possibility is that Sankt Clemens church was established later in the eleventh century. If we look at this scenario, it seems like the cemetery at Rådhuspladsen is taken out of use fairly soon after the establishment of Sankt Clemens. Both scenarios can be taken into consideration. The choice has implications for how we should understand the site Havn in the early-to-mid-eleventh century, who might have been behind it and why it was established.

If we look at the general character of the archaeological material of the eleventh century for clues, the activity seems quite sparse and there is nothing that stands out as remains of specialised activities which could be behind the establishment. Household refuse and small-scale production waste from smithing, comb-making as well as fishing should be seen more as a consequence of there being a settlement rather than the reason for it.

The information from written sources, taken together with the archaeological records, points to

an original function for Købmannahafn as a port and local trading centre, used by the local estate-owners and farmers as a landing site and trading centre mainly for their agricultural products (Dahlström et. al., 2017). As stated earlier, Valdemar's gift to Absalon around 1160, in which 'Haffn' together with the manors and villages was granted to the Bishop, points to a close relation between the port and the surrounding estates and rural settlements. The character of the early archaeological remains, indicating the dominance of trade in local, non-specialised products rather than more specialised exotic goods, supports the idea that the oldest settlement in Copenhagen grew out of a need to support the local manors and villages and supply them with goods from outside, as well as offering possibilities for the sale of their own commodities. The first phase of Copenhagen can on this line of argument be characterised as a port and meeting place, primarily for local people and local goods. However, it seems likely that the strategic location very early on had caught royal interest, resulting in the presence of the king in the form of the Sankt Clemens church. The church was a symbol for power, showing the king's alliance with the growing ecclesiastic authorities. We believe it to be reasonable, that the port in the early eleventh century was controlled by the king in collaboration with one or more local lords, one of which was behind the construction of the presumed church at Rådhuspladsen. Therefore we suggest a scenario where the first Sankt Clemens church (a wooden church) and the presumed church at Rådhuspladsen were built close to each other in time, during the first half of the eleventh century. Manors held by local lords or the king were likely placed close to the churches. From the fragmentary material indicating early activity in the east, it is also possible, that the location of present-day Kongens Nytorv/Magasin was the location for one of these manors.

If we see a possible early start for the settlement and port Havn in a wider perspective, it could be compared to the early phase of a town like Lund. Lund is believed to have been established by the royal authorities in the last years of the tenth century. The date is foremost based on graves from what is said to have been the earliest burial ground in Lund (Johansson Hervén, 2008, p. 263ff). The establishment of Lund was part of a strengthening

of royal power in Denmark and for this the Christian mission and the building of churches was important. Svend Tveskæg is the king who is now thought to have been behind the first Lund (ibid.). But it was not until the early eleventh century that the real establishment of the settlement and craft production took off. This may be seen in relation to King Canut's return from England around 1020 (Blomqvist, 1951, p. 33). Around this time, it is likely that the need for communication between Scania and the rest of Denmark increased considerably. Perhaps we should see the first establishment of Havn, with two early churches, in this light? The long-standing idea of a primary function for Havn as a port between the towns Lund and Roskilde, a town also established as a royal and episcopal centre form the first years of the eleventh century, should be taken into the scenario. Even if the size of the settlement in Havn must have been small at this point, it was, due to its location, seen as a strategic point to claim a stake in.

Finally, we wish to emphasise that the interpretation of an early eleventh-century settlement structure in Copenhagen presented here, to a large degree rests on dates suggested by the new statistical modelling of the Rådhuspladsen graves. However, even if the proposed datings should be revised, all evidence clearly points to the emergence of Købmannahavn in the eleventh century. The factors involved in the creation of the town which are sketched here do not change even if somewhat later datings should be established, only the names of the main agents involved.

Twelfth century

Around the start of the twelfth century, changes took place in Købmannahafn that manifested themselves in large building projects – the construction of the enclosure surrounding a 2.5 ha area between Rådhuspladsen and Gammeltorv (Figure 25(b)), and the Sankt Clemens stone and brick church. We do not know exactly when the Sankt Clemens stone church was built, but the time of construction should likely be placed in the twelfth century. This could correlate to possible dates for the enclosure which was interpreted above as the first town fortification. It seems likely that the two constructions were undertaken close to one another in time, and that they were built on the initiative of the same town ruler.

The scale of the constructions indicates that they were built by someone with the resources and power to organise and implement large building projects like these. This makes it likely that the king was behind the constructions. As already noted, Sankt Clemens churches are commonly seen as being built by the king, or members of his retinue. The presence of the church can be said to give a clue to the function of the adjacent enclosure. In several towns, such as Roskilde and Horsens, royal manors were placed next to Sankt Clemens churches. We suggest that the ditch (and possibly a rampart) enclosed a royal manor, built in the late eleventh century or early twelfth and taken out of use in the late twelfth century in connection with the construction of Absalon's castle on Strandholmen. Perhaps the building of the Sankt Clemens church and the suggested manor was a part of the king's wish to mark himself as powerful town authority, maybe aimed towards local aristocrats. By this time, it seems like the cemetery at Rådhuspladsen had been taken out of use. The patron of the first church, which was probably a wooden church, was no longer motivated to keep the church in shape, and therefore it was taken out of use at a time when most other town churches in southern Scandinavia were either rebuilt in stone or, like this one, abandoned. These actions probably had symbolic value, as they involved a centralisation of activities away from the site of the first church (and probably a manor that we have not yet seen). The enclosure disrupted earlier settlement, causing the people using those areas for dwelling or working to move and adjust to a new town structure and a new town authority. It was also a signal of who was in charge, directed at local lords, who were probably still active in the town, but on a lower level.

The archaeological settlement evidence of the twelfth century shows increased activity, as well as its spread to a larger area, more in line with the later fortified town area as we know it from the thirteenth and fourteenth centuries (Figure 25(c)). Remains dated to the twelfth century are found in an area extending from Rådhuspladsen in the west to Kongens Nytorv in the east, with the emphasis on the western part. The archaeological remains at Rådhuspladsen clearly show an intensified activity at this period in time.

The mention of a Sankt Olav church in the thirteenth-century written records is interesting. The Sankt Olav church could, as we have noted, date back

to the twelfth century, as is also known from other towns. Early Danish towns such as Aarhus, Lund, Kalundborg and Schleswig all had Sankt Olav churches dating from the twelfth to thirteenth century (Jørgensen, 1909, p. 153f, DK 16.1). The possibility of up to three contemporary churches in early Copenhagen is in line with the situation in other Danish towns in the eleventh century. This suggests that the church building took place in the period before the parish system was fully in place (Kristensen and Poulsen, 2016, p. 75). In Copenhagen at the end of the twelfth century the construction of a new, large parish church commenced – the Church of Our Lady (Vor Frue Kirke). At approximately the same time, the ditch surrounding the enclosure, which we suggest may have belonged to a royal manor, was backfilled. These actions should be seen in relation to the shift in the power of the town lords that took place when Absalon gained control over Købmannahafn some time in the mid-twelfth century. The new town ruler wished to leave his mark on the town, and with the church building project, together with the construction of the castle on Strandholmen, he certainly contributed to the town topography and changed the town's character to match a more ambitious town with future aspirations. In connection with the construction of the castle, the functions of the old enclosure and the suggested manor no longer existed, and they were taken out of use. It is also likely that the Bishop, together with the emerging town council, was a force behind the planning of the great wall upon which work was started in the early years of the thirteenth century, only a few years after Absalon's death in 1201.

If we look for Danish towns with which to compare Copenhagen in the mid-twelfth century, Kalundborg is a good example. The town here is believed to have started as a fishing site, and in the twelfth century grown into a town. In the old part of the town there was a Sankt Oluf (Olav) church. Towards the end of the twelfth century, a new town area emerged and here a large church was erected, as well as fortifications surrounding the new town area. This building initiative was taken by Absalon's brother, Lord Esbern Snare, or his daughter (Nyborg 2004, p. 141, Sass Jensen and Roesdahl, 2013). The example shows some of the dynamics of the growth of town government and

of institutional and topographical development in this early part of the medieval period.

Around 1200

Returning to Copenhagen, with the physical and structural changes in the town topography dating from c. 1200, it was beginning to resemble the town that we know later in the medieval period (Figure 25(c)). A residue of the older town structure, its centre focused more towards the west, was the settlement area at present-day Rådhuspladsen. Here the same activities as accounted for in the late-eleventh to twelfth centuries were still ongoing – the archaeological record speaks of households and iron-working activity present in the area all the way into the fourteenth century, when the fortification constructions reached the area and it was abandoned for all activity. The fact that the western town area was in use for so long, even though it was in the way of the moat and rampart, can be interpreted as indications of conflicts between people in the town. While most people had good reasons to be in favour of the fortification, it seems that the plot owners in the western town area may have resisted moving for a long time. The latest AMS dates from the excavations at Kongens Nytorv and Rådhuspladsen suggest that the construction process lasted 150 years from the start in the east to completion in the west. While probably not the main reason for the delay in completing the constructions, conflicting interests among the townspeople may have played a role in this development. Could it be a possibility that those who owned plots in the western part of town were related to those families that had interests in this part of the settlement already in the eleventh/twelfth centuries? Resistance could also be seen as an expression of the dynamic development in the early phases of towns like Copenhagen, where changes were decided from above and not always in favour of the town inhabitants.

The way in which the small port of Havn grew into the rich merchant town and the capital of the kingdom in the late medieval period is naturally quite complex. It is related to a general economic and political development, both in the region and across the whole of Denmark. Havn's strongest feature was its communicative value. Its location – on the coast of the Øresund, in a sheltered harbour and surrounded by fertile land – was unique in Zealand. The fertile land offered excellent economic outcomes, producing goods that were brought to Havn and traded on a local and regional level. Economic and political development in the eleventh/twelfth centuries led the royal powers to take an interest in Købmannahafn, and with the backing of the king, the town began to develop into something more than a small port for agrarian trade. Trade, fishing, production, transport, church building and the administration of kings and bishops attracted people to the town, offering a variety of people ways of making a living. The growing importance of Baltic Sea trade with the rise of the German traders, as well as the increasing economic role of herring fishing in the Øresund, only added to the town's strategic and economic value.

The journey that Copenhagen took is not exactly like that of any other Danish town. In the beginning, Copenhagen can in some ways be compared to the köpingar around the Øresund coast. The early church development is however more resembling early town formations as individually different as Lund and Hjørring. In the twelfth and thirteenth century, Copenhagen resembles towns like Kalundborg. Around 1240, Kalundborg was Zealand's third largest town, while Copenhagen was only the fourth. Copenhagen, however, eventually outgrew all the Danish towns, with Malmö its only rival as it reached the fifteenth century. Copenhagen flourished as it did because of the way it managed to attract the interest of people from all levels of society – both the governing strata in society (king, bishop, lords, wealthy tradesmen) and the vast majority of people (farmers looking for a better life, seafarers, paupers, artisans). All made their living in various ways in Copenhagen, and in so doing, all contributed to the town's success.

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ORCID

Jesper Olsen http://orcid.org/0000-0002-4445-5520

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