English Summaries

Perspectives in Danish medieval archaeology

By Olaf Olsen

The article sketches a number of research projects of current interest. With respect to ecclesiastical archaeology it is suggested that more attention be paid to total investigations of the floors of village churches - with a view to dating the introduction of Christianity. With respect to castles it is suggested that future volumes of "Danske Voldsteder" be designed as contoured atlases. It is pointed out with respect to urban archaeology that the expensive surface exavations will probably have to be replaced by more limited excavations performed on the basis of a total registration of all existing knowledge of the town in question in the Middle Ages. In recent years artefact research has flourished and this tendency will undoubtedly grow in the coming years as a result of the systematic collection of all objects recovered from excavations. Underwater archaeology, too, flourishes, and we may expect finds of medieval vessels along the Danish coasts. There is, however, a regrettable stagnation in archaeological research into medieval agriculture, in which Denmark previously played a pioneering role. Museums should be encouraged to resume this important work.

Medieval archaeology in Norway

By Petter B. Molaug

The article gives a glimpse of the activities and "Stand der Forschung" in Norwegian medieval archaeology. Field activities, especially urban excavation, have increased rapidly in the last 20 years, mainly due to modernization of town centres. Main questions have been date of origin, structure, building techniques and economic activities. Although the countryside had by far the largest population and has been the principal goal of historical research, little has been done archaeologically. Farms in W. and N. Norway, fisheries, hunting and iron production have been studied and new light has been cast on the evolution of stave churches.

The Medieval Town Project - An attempt to survey Swedish urban archaeology

By Hans Andersson

The article describes the background and the programme of a project called *Den tidiga urbaniseringsprocessens konsekvenser för nutida planering (»Medeltidsstaden«)* ("The Medieval Town": Implications of Early Urbanization for Modern Planning) which

started in 1976 and is connected to Riksantikvarieämbetet och Statens historiska museer (The Central Board of National Antiquities and the Museums of National, Numismatic and Mediterranean Antiquities). The aim is to make a detailed survey and documentation of the situation of medieval urban archaeology in Sweden and its implications for physical planning, and to perform a scholarly evaluation of the material. The recorded material will be used to discuss general problems of urban archaeology which have particular relevance to practical work in this field, and also to throw light on the conditions determining development in the places in question.

An excavation in the medieval part of Visby, Gotland, in 1974

By Gun Andersson

This paper describes an excavation in 1974 in the centre of the medieval town of Visby, which revealed house constructions from about 1100 to modern times. This part of the town was very little known and had never been excavated. The area has great importance in the discussion on the site of the oldest Visby.

The limits of the earliest settlement towards the higher parts of the town were not settled with certainty.

The oldest house construction found consisted of wattle and daub. This construction was replaced by houses with wooden walls, with or without sill.

Horsens - Development of a medieval town

By Claus Andreasen, Thomas W. Lassen, Per Madsen, Ole Schiørring

The paper is based on a total examination of all written and archaeological sources on the medieval town of Horsens, E. Jutland. It describes the topographical development of the town from the beginning of the Middle Ages. The oldest settlement dating from about the first half of the 12th Century is probably to be found west of the present town-centre around the oldest parish church of St. Mary, demolished about 1550. In the first half of the 13th Century a new centre was established around the royal chapel of St. Jakob (now the church of Our Saviour) and surrounded by a moat. At the end of the Middle Ages the town expanded so much that the fortifications were dismantled, and the town obtained an area which sufficed until about 1850.

Based on the results of the examination it is possible to indicate several places where even a modest archaeological investigation should bring new information, especially on the oldest urban settlement and its church.

On Ribe's town hall, *Skibbroen*, an excavation and a presumptive cooper's workshop

By Mogens Bencard

It has been suggested that the area behind the harbour in Ribe with its narrow streets at right-angles to the river, and the broader streets, Fiskergade and Grønnegade, is the area where Viking-age Ribe was situated. Documentary evidence, however, contra-

dicts this. A small trial trench has shown that the oldest layers are not earlier than the 13th C. Written sources date Fiskergade to the 15th C. and the quay to ca. 1500. In consequence it is suggested that the harbour was in the Middle Ages situated on the northern bank of the river, outside the town limits. - Among the finds from the excavation are wooden objects of pine and fir; finished or unfinished staves from coopered cups. These cups are well-known from Southern Scandinavia and Northern Germany. Pine and fir did nod grow naturally in Denmark in medieval times. The find suggests a cooper's workshop in the neighbourhood, working in wood, probably imported from Northern Germany in a semi-finished state.

The topography of Trondheim in the Middle Ages

By Clifford D. Long

Little of medieval Trondheim has survived; even the street pattern is from 1681 when the city was replanned after a fire. Mid-17th Century maps show that some of today's back-streets correspond to pre-1681 streets. The suspected continuation of one of these has now been excavated. The lowest levels of wooden paving are 11th Century. Wooden paving of another medieval street was recorded in 1975, but a wide street shown on the 17th Century maps has not been traced in the medieval levels. In the area traditionally associated with Magnus the Good's palace, excavations have uncovered foundations of a church, probably St. Gregory's, with a vaulted crypt below the apsidal east end. Dating from the 12th Century, it cannot be ascribed to Magnus. The east end was later rebuilt with a square chancel but the apsidal crypt was kept. Other churches excavated earlier cannot be dated or identified with certainty. The site of one became the market-square after the Reformation. Timber buildings excavated since 1970 show a variety of building techniques and functions.

The excavation in Trangstræde

By Bjørn Stürup

In 1968 Kulturhistorisk Museum had the opportunity to undertake a minor excavation on a site in Trangstræde, where previous finds had indicated the existence of remnants of Randers' oldest - medieval - settlement. The excavation area was confined to a mere 2 x 8 (6) metres. Our main aim therefore was to collect a fair representation of pottery, preferably stratified, and thus obtain an idea of the local chronology and development of pottery production.

Several stratified layers and fragmented building structures were uncovered. Most important was the discovery of part of a wall, with a pavement on its west side and a ditch on its east side. The ditch cut through a series of layers, the deepest of which had been formed under water (phase *a* and part of phase *b*). The ditch had evidently been open for some time (phase *c* and phase *d*) and was later filled up. The covering layers (phase *e*) were characterized by "workshop and living activity", terminating in layers of the present period.

It was possible to connect the sequences mentioned with finds of pottery of a simple, grey ware (a local production that continued until the end of the 19th Century).

Very few finds are of absolute dating value. What

was obtained was an idea of the relative chronology, based on pottery.

Archaeological investigations in Randers 1873-1977

By Jens Vellev

With the aid of a few standing buildings, written sources and not least sporadic archaeological investigations carried out over the years in Randers, E. Jutland, it has been possible to draw a reasonably fair picture of the town as it must have appeared at the end of the Middle Ages. A comprehensive study of finds and excavations performed in 1976 will provide the foundation for future archaeological investigations which will no doubt increase our knowledge of the early topography of the town. With the aid of single finds collected at building sites - and a solitary archaeological probe - it is possible to follow settlement back to about 1100. When the Kinopalæ was built in 1939-40, settlement layers 4-5 m thick - mainly medieval - were revealed. The find material was rich: single and double combs, soapstone, shoes, knives and scissors, parts of crossbows and large amounts of pottery, mainly black ware with a few rim sherds of "Vendic" type. Material attributable with certainty to the Viking period, for example vessels with inverted rims, was lacking.

The most important finds and observations are plotted on a map from 1902, while a contour map of about the same date gives an impression of the surface structure of the town. It must be the principal aim of future investigations to eliminate the later fill layers to allow a new contour map showing the topography when the town was first built - in the Viking period? - to be made.

The Romanesque Budolfi Church in Aalborg

By Jan Kock

The present Budolfi Church in Aalborg was built some time during the 15th Century. Rebuilding in 1941-43 revealed traces of the church which preceded the present edifice.

The sill stones of the choir of a presumptive wooden church were found. This was replaced by a church in granite ashlar, of which the chancel arch, choir and parts of the nave walls were demonstrated, comprising besides the double foundation up to two courses of the walls.

The granite church was destroyed by fire, but was rebuilt and furnished with a round apse instead of the straight termination of the choir.

The western end of the stone church was rebuilt several times. The original western gable end was replaced by a semicircular apse, which was again replaced by a straight gable end somewhat further west.

A western apse is in Denmark known only at Asmild; it may have been derived from the East Frankish area where it is quite common.

The late medieval altarpiece of Råbjerg Church

By Thomas W. Lassen

Through written sources going back to 1732 the original appearance of the late Gothic triptych in the parish church of Råbjerg in the northern part of Jutland is established, including wood-carved figures of God the Father with the suffering Christ, the Virgin Mary, St. Anne and the other female members of the Holy Family with their children and St. Roch.

Bishop graves at Øm

By Per Kristian Madsen

The excavations of the Cistercian abbey of Øm by C. M. Smidt and the results are discussed and compared to the evidence of the Øm Chronicle and general Cistercian rules. A new thesis on the building-history of the monastery is offered, partly based on the re-identification and re-dating of the grave of Peder Elafsen, bishop of Århus, who died in 1246.

Special attention is paid to the four funerary pots from Peder's grave, of which only one remains intact with its content of charcoal. Comparison with similar French pots, medieval texts and a miniature suggests that the Danish funerary pots as well as the French were used as incense pots at funerals. The distribution of funerary pots in medieval Denmark is shown and a general dating of the custom - from the beginning of the 13th to the end of the 14th Century - is given, the Øm pots being the oldest datable example.

Wooden figures of St. Michael

By Ebbe Nyborg

The arrangement, number, placing and function of side-altars in 12th-13th Century Danish parish churches are discussed. Archaeology locates such altars almost exclusively in two places in the nave on either side of the chancel arch. However, mural paintings and wooden sculptures, assumed to have adorned the altars, indicate an increase in number from the 13th Century, probably as a result of private endowments. It cannot be established whether the side-altars were generally dedicated to the patron saint of the churches in question. The relatively large number of altars dedicated to St. Michael, especially in the very earliest time, leads to the suggestion that the requirements of obits might originally have played an important part in bringing about the cult of side-altars. This idolatry must eventually have been an important vehicle for promoting the increasingly personal devotion of the later Middle Ages.

Medieval polychrome stone sculpture in Denmark

By Karin Kryger

Today we are used to stone sculpture with no colours, but in Antiquity, the Viking Age and the Middle Ages, stone sculpture was painted in order to throw the carving into relief and in some cases to replace it. A misunderstanding arose in the Renaissance, that ancient sculpture was devoid of colour. The stone sculpture of Antiquity and the Middle Ages was cleaned and the artist's skill in handling the material became very important, as no colour remained to accentuate the relief of the carvings. In Denmark very few traces of colours remain since an 18th Century law required medieval sculpture to be cleaned. Although the remaining colours are few, we may conclude that the most used colours were black (soot) and red (red lead) which were easy to make and inexpensive. Other and expensive colours such as gold, ultramarine and cinnabar were also used. The idea of how to use colours and which colours together seems to be quite different from today. Today we would find the use of colours as used in the Middle Ages vulgar, but to medieval people art should be glorious and bright in praise of God.

Oil lamps from the earlier Middle Ages

By Bengt Stolt

The author gives a catalogue of 20 oil lamps or cressets from Sweden. Eight were found in the county of Skåne which in the Middle Ages belonged to Denmark, one in the former Norwegian county of Bohuslän, and five on the island of Gotland.

The Swedish cressets are compared with various types of cressets from England and Denmark. The author surveys the various theories on the use of cressets in Swedish and English literature. Thus a deformed cresset from Önnarp, formerly used to hold holy water, was the basis for the opinion of Professors Sven Nilsson and C. G. Brunius that all cressets originally served that purpose. This opinion dominated 19th Century Sweden long after the English priest Thomas Lees in 1882 proved that the cresset was a kind of oil lamp.

The author finally indicates some papers discussing the use of lights in medieval churches, adducing Scandinavian examples. His conclusion is that cressets were not normally manufactured after the middle of the 13th Century and were replaced by metal lamps and candles.

Romanesque oil lamps from Denmark

By Jens Vellev

The author catalogues 16 medieval oil lamps from the present Danish area. They are ashlar granite blocks, often built in, with 2-12 holes about 10 cm in diameter in the flat upper surface. The lamps were first mentioned by Sophus Müller in 1888, referring to an article by Thomas Lees on the corresponding English "cresset stones", published in 1882. Since then the number of known lamps has increased considerably, but their original function has still to be determined. Over one hundred lamps are now known from northern Europe (England, Norway, Sweden, Denmark) and central Europe (Austria, southern Germany), and they will probably appear in other areas of Europe, too. The Danish/Swedish lamps are normally dated to the Romanesque period and are thought to have provided simple illumination for churches. There is a possibility, however, that they served as grave lamps.

Foundry for a church bell in Visby

By Eric Swanström

A foundry for a church bell was found 14 m east of the church ruin of St. Klemens in Visby. It consisted of a pit measuring 2.8 x 4 m with a depth of 1.4 m. The pit was full of red sand and burnt clay, and at the bottom the remains of the mould were found, consisting of a base of clay and limestone. West of this was the outer part of the mould made of fine clay. Traces of the inner form could not be found. The mould was probably used some time during the 16th-18th Century. The oldest preserved bells from Gotland are dated to the 13th Century.

Very few of the medieval bell founders are known by name; they were usually foreign craftsmen. When the "klock-, kron- och styckgjutarämbetet" was founded in Stockholm in 1636 the names of the founders were preserved in the guild papers. The more recent bells usually bear the name of the founder, and the place and year of founding.

The casting of medieval church bells

By Jens Vellev

The point of departure for this article is an inscription on the bell from Jerlev Church, dating from the mid-15th Century, stating that the bell was cast in the parish near Vejle - and not in a distant bell foundry. Many finds of European bell foundries found in or near churches are described. In conjunction with ecclesiastical records they show that bell founding was in a surprisingly large number of cases carried out on the church site, the bell casters often travelling around the country performing their trade.

The investigations supplement our knowledge of the technique employed in the Middle Ages, otherwise known only from two famous descriptions by Theophilus (around 1125) and Biringuccio (1540).

A Danish bell-foundry from about 1450, excavated in Jelstrup, northern Jutland in 1922, was located in a tumulus which as early as 1638 was called Klokhøj ('Bell Mound'). About 30 localities, all located near medieval churches, have names suggesting bell casting: Klokhøj, Klokkebakke, Klokkehul. In several cases there is also a local tradition that bell casting took place on the site.

Kidney-daggers from the Randers region (Jutland)

By Niels-Knud Liebgott

Apart from the works of Ada Bruhn-Hoffmeyer the study of earth-found medieval weapons in Denmark has been very limited. This article deals with a specific type of dagger, usually called a kidney-dagger. More than 100 medieval kidney-daggers are registered in the Danish museums, of which approximately 80 are in the National Museum, Copenhagen. Only one of these kidney-daggers has the blade of a knife, the others are regular weapons or hunting daggers.

Ten of the daggers differ from the rest. Some of these are only imperfectly preserved but it is clear that all specimens are very much alike though the blades vary. On one a maker's mark can be seen. The hilts are partly made of root wood, partly of cast bronze. In one case (cat. no. 10) the bronze cast "kidneys" look more like a waste product but may still have been part of a useful dagger-hilt.

The uniformity of the hilts suggests that they originate from the same workshop. As no direct parallels to this design are known in the areas (North Germany and the Netherlands) where daggers with cast bronze parts are usually assumed to have been made (Bashford Dean), the location of production is probably somewhere in Denmark. The finds are concentrated around the city of Randers in eastern Jutland and it is likely that they were made there.

Ada Bruhn-Hoffmeyer has suggested a dating for the daggers of about 1300. Cat. no. 2 was, however, found together with one of the daggers as part of a hunting set. The ornaments on the handle are in the style of Hans Holbein, i.e. about 1530.

Salt and salt trade in the Baltic area in the early Middle Ages

By Erik Hellerup Madsen

Production of and trade in salt in the 12th and 13th Centuries are discussed under the following heads. *Economy and comsumption. Local production* (salt

from seaweed, and from brine in Læsø/Halland in Denmark and in various places in Germany, and rock salt from southern Germany and Poland). *Supply* (mainly based on the city law of Söderköping in Sweden (about 1250)). Production and imports into the Baltic area of *Lüneburg-salt* via Lübeck (brine), *Baie-salt* from France (solar evaporation and "Umlandfahrt"), *Frisian-salt* (peat-salt from southern Jutland and the Low Countries) and *Norwegian salt* (brine).

A good deal of local production has been found. Norwegian salt was sporadic and poor, Frisian salt sufficient but of poorer quality than the salt from Lüneburg which expanded as a preservative in the great herring fishery at the centre of industry and trade established in the market of Scania (Skaane), and with the urban and agricultural expansion toward the eastern Baltic in the 12th Century. As early as the 13th Century the poorer but cheaper Baie-salt - sailed around Jutland ("umme land") - was a serious competitor.

Coins from church floors

By Jørgen Steen Jensen

The author gives a survey of a certain type of stray finds of coins, i.e. the coins found in Danish church floors and recorded in the Find Register of the Royal Collection of Coins and Medals of the National Museum. Such coins have been recorded virtually as long as the Register has been kept, i.e. from the middle of the 19th Century, but this group of finds gains importance from the middle of the 1950's, when a circular (drafted by Olaf Olsen) from the National Museum instructs the authorities working with restoration of churches to sift all excavated soil. The situation was rather acute because of all the heating installations which were being carried out.

The table shows the distribution of finds through the decades, totalling 9,250 coins. There is a marked rise in the 1950's, both in absolute numbers and in average numbers, viz. 4,500 and 44. The last figure has in later years declined to 17 or 18, the reason being that great care is now taken to avoid unnecessary disturbance of church floors.

More than half of the coins found are medieval. The rather regular chronological distribution, especially from the 13th Century and on, appears to be much the same as in Sweden and the isles of Åland, whereas the composition of the finds in Norway and Gotland is quite different. Here we have far greater numbers of coins found in the individual churches, and most of these coins belong to particular medieval periods. Gotland has some churches with more than 4,000 coins of only one type (15th Century). (The greatest number of coins found in a Danish church is c. 340. They were found in the church of Aggersborg in northern Jutland in the summer of 1976, after this article had been written.)

The article sketches the use to which the finds may be put, i.e. the attribution to various mints of some of the Danish medieval coins.

Shoes as archaeological source material

By Erik Schia

The article deals with 655 shoes excavated at "Mindets tomt" Oslo during the years 1970-72. In this material the type could be determined in 277 cases. 8 types were identified, according to the manner in which the shoes were closed to the foot: *Low-leash shoes*

(fig. 2), *High-leash shoes* (fig. 3-6), *Other-leash shoes* (fig. 7-8), *Shoes without closing* (fig. 9-11), *Side-laced shoes* (fig. 12-13), *Front-laced shoes* (fig. 14), *Strap shoes* (fig. 15), *Buckle shoes* (fig. 16). In addition to these types, we have *Boots* (fig. 17-20) and one *Hide shoe* (fig. 21). Within these main types it was necessary to recognize 19 sub-types with variants. The dating of these subtypes is seen in the seriation diagram fig. 1.

In addition to questions related to chronology, the author also raises questions of more culture-historical character.

One question is whether different types of shoe were made for children, male and female, and therefore 158 soles were measured (fig. 24). Children's footwear was assumed to have a length of less than 23 cm, women's footwear to have a length of 23-26 cm, and men's footwear to lie between 26 and 29 cm. Using this model the type-determined shoes were measured to see if any trends could be seen (fig. 25). No clear answers were obtained, but there are indications that Boot 1 (fig. 17) and probably Shoe without closing 1 (fig. 9) are for women, while Boot 3 (fig. 19) and probably Side-laced shoe 1 (fig. 12) are for men. It is clear that Strap-shoes (fig. 15) must have been used by both sexes, and that children's footwear copied adults'. The material does not concentrate around male or female sizes and it is therefore likely that different shoes were not made for the two sexes. However, written sources inform us that medieval people themselves distinguished between women's and men's shoes.

The author also considers technique and whether a change from the late 11th Century to the mid-14th can be seen. It looks as if no important change has taken place, but new minor details as a possible result of better technique seem to occur in the beginning of the 13th Century: "bes" and asymmetrical soles (fig. 29 left) were produced and from now on more shoe types were made than ever before (see fig. 30 showing the increase in the number of shoes made, in relation to the fire layers).

At the same time as better technique seems to develop, there are also indications in the material that people repaired their shoes more often than before (fig. 31-32).

The question of foreign shoemakers in the Norwegian towns is also touched on and there are indications in the material that the Hanseatic position was based more on a strong political organization than on better craftsmanship.

The last question deals with where in the town the shoemakers had their workshops.

A new system for the registration of medieval artefacts

By Rikke Agnete Olsen

A presentation of the principles behind a registration card which makes it possible in most cases to perform a proper museum registration of the finds on the excavation site. The card has been developed for the excavation of the Cistercian monastery of Øm in Jutland. A significant part of it concerns ceramics where much of the work comprises simple checking off in special sections referring to general characteristics of pottery.