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KINGS' JELLING

GORM & THYRA'S PALACE
HARALD'S MONUMENT & GRAVE - SVEND'S CATHEDRAL

Klavs Randsborg

In memory of C.J. Becker (1915-2001)

1. JELLING & DENMARK

... auk tani [karði] kristna
... and made the Danes Christian
(King Harald, the large Jelling rune-stone; 960s AD)

The Jelling monuments of the late-10th century AD and their importance for the Danish kingdom and empire of the late Viking Age are well known (cf. Jensen 2004).[1] Jelling is centrally placed very near the north-south going main road through Jutland (Jylland) (Randsborg 1980; 1991) (Fig. 1). Like a spider, it also holds the same landwards distance to a number of centres, which all were to become important cities in the 11th century: Ribe, Viborg, Århus, and Odense on Funen (Fyn). Even the great Hedeby/Slesvig, faraway to the south in Jutland, is not too far away, and thus the land routes in direction of Hamburg and Central Europe as well as towards Slavonian East Germany and on to Bohemia and Poland. Indeed, south of Jelling is the two-lane half a mile long wooden Ravning Enge Bridge across the watery Vejle River (Jensen 2004, 396f.). The bridge is easing access to the centre when approaching from the south, while at the same time demonstration the powers of the king.

Narrow valleys to the east of Jelling - easy to defend - are leading towards the inlet of Vejle Fjord, in turn opening into the Cattegat (Kattegat) Sea, connected with the Skagerac (Skagerak) and the North Sea, the roads to Norway and England. Frisia (and England) is reached from Ribe and - across a short stretch of land - from Hedeby/Slesvig. Through the Belts one enters the Western Baltic. In fact, all Danish Islands and even Scania (Skåne) and other eastern provinces were within easy reach by boat from the deep wooden lovely Vejle Fjord. Further into the Baltic are Sweden and other regions, including Russia and the routes to the Near East.

However, Jelling did not develop into a city. Rather, it was a gigantic estate centre or manor house, even a palace, in Western Denmark, which during the 10th century

1 The paper is dedicated to the memory of the late Professor C.J. Becker, an excavator with a vision, a very productive scholar, and editor of Acta Archaeologica. As a young man, he served as assistant to E. Dyggve during the excavation of the Southern Mound at Jelling. C.J. Becker devoted his life to the promotion of Danish archaeology and its empirical tradition. The author stands in debt to his inspiration, interest, and support.

Acknowledgements: The author stands in dept to the fine fieldwork of K.J. Krogh and the late E. Dyggve, their ideas, and perceptions. The author also appreciates the critical remarks to the above by the late H. Andersen, as well as information, ideas, and comments to the present work from N. Lund, N. Lynnerup, C. Adamsen (who in particular has provided useful comments and information), K. Christensen, M. Gelting, K. Ottosen, H. Skov, M. Warmind, and others. However, the author is sole responsible for the interpretations. Most observations, including those of the author, were presented at the First Jelling Conference, May 2008 organized by the National Museum of Denmark with support from the Bikuben Foundation, the new benefactor of investigations in a Jelling context.

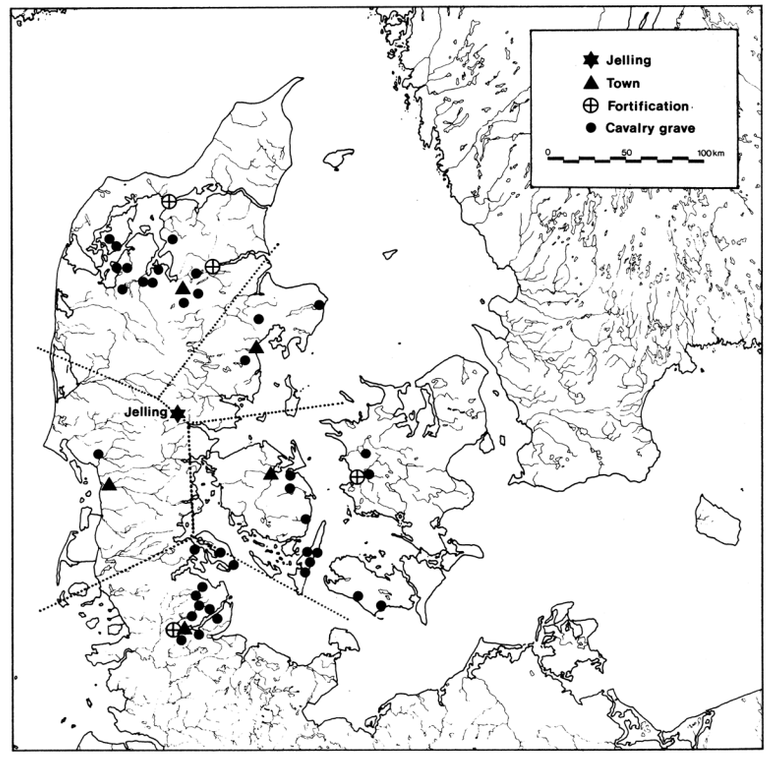


Fig. 1. Jelling and other important localities of the 10th century (after Randsborg 1991). The likely Trelleborg type fortress at Nonnebakken in Odense, Funen should be added to the map, as possibly the southwest Scanian ring fortresses at Trelleborg town & Borgeby village, near Lund - however somewhat differing.

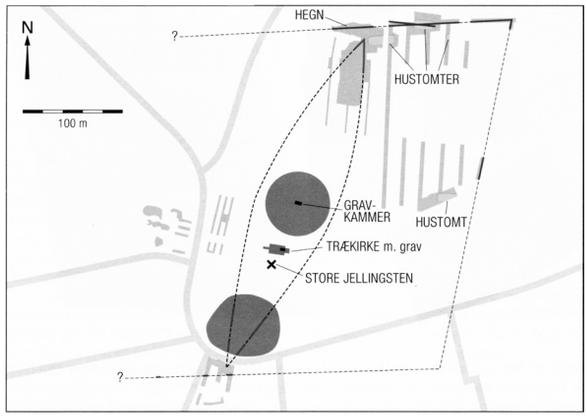
The cited cavalry weapon graves all hold weapons, horse gear (including heavy bits and stirrups), and other items in an age with very modest grave goods (Randsborg 1980, 121f.). Obviously, the items have not been passed on to heirs, but serve to mark a particular occupation of the death men, perhaps as professional officers of the hirð, as well as owners of estates.

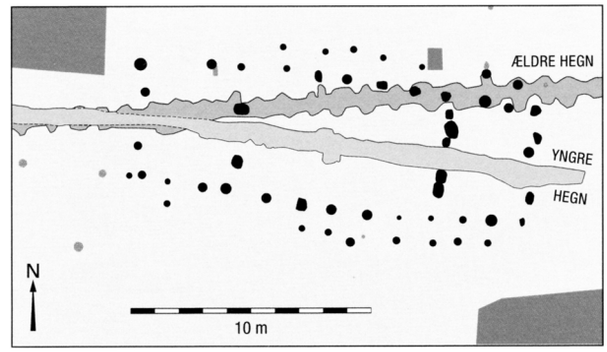
was adequately positioned for the king (cf. Jensen 2004, 371f.). This picture is highlighted by recent finds of a gigantic palisade fence around (1) two huge mounds, (2) a huge ship-setting with the Northern Mound as its centre, (3) two rune-stones erected by King Gorm and by King Harald: "Bluetooth" to later sources[2], who accepted Christianity, and (4) a large wooden church - in fact, three subsequent ones, the last one resting on boulders, the earlier ones with roof-supporting posts dug into the ground (cf. Krogh 1966 - then operating with only two wooden churches) (Section 4 below; and Appendix II). Mound burials and ship-settings are traditional symbols of high status and should therefore be considered non-Christian. The ship-setting is the largest ever found: 354 m, or exactly 1,200 Roman feet; this foot is the unit of measurement also used at the famous Trelleborg fortresses (*contra* Nielsen 1974).

The name of the church was perhaps St. Johannes (St. John the Baptist), since the frescos of the stone church from the beginning or the 12th century are devoted to Johannes "Døberen" (Haastrup & Egevang 1986, 64f.). The heavy palisade fence was seemingly erected to fit the ship-setting, and is thus defining the representative and ritual area. It is also so tall that one would only catch a glimpse of the top of the monuments from the outside. Studying King Harald's large and important rune-stone would only have been for the few.

The fenced area, of at least ten hectares, is nearly rectangular but only preliminarily investigated (Mohr Christensen & Wulff Andersen 2008) (Figs. 2a-b). Apart

2 Short range wireless connectivity has, for unknown reasons, adopted the term "Bluetooth" from King Harald's later nickname, which actually means "Black Tooth". The logo is HB in runic letters.





Figs. 2a-b. The Jelling monuments and finds as of early 2008 (after Christensen & Wulff Andersen 2008). Note the two huge mounds and the remains of the huge ship-setting. Also marked are the fields of excavation, in addition to modern roads. [Danish] Hegn = fence; Hustomt(er) = house structure(s); Gravkammer = Grave chamber; Trækirke m. grav = Wooden church w. grave; Store Jellingsten = Large Jelling [rune] stone. - Ældre hegn = older fence; Yngre hegn = later fence.

A riddle is the angle of the main axis of the whole monument, 24 degrees towards the east, hardly an astronomical cardinal point (Midsummer's sunrise is at 44 degrees towards the east in Denmark). The angle is partly reflected in the strange polygonal shape of the main fence.

Stop press note: The western fence was found in Oct. 2008, c 100 m to the west of the big rune stone.

from the monuments, it contains several halls of common type. One of these halls - from around 1000 AD - was built after the first palisade fence was removed (Mohr Christensen & Wulff Andersen 2008, 8). A later palisade fence, likely an adjustment to the first one, is seen in the same micro area, but the relative age of the hall and the late fence is unknown. The hall and the late fence have the same orientation as the wooden church, a couple of hundred metres away though and may be more or less contemporary. Likely, this whole area is the predecessor of the later "Bailiff Farm" at Jelling. Another major farm from recent times - "The Vicarage" - was placed to the south of the fenced area; also this may have a Viking Age predecessor.

The Northern Mound held a very large wooden chamber grave, heavily disturbed and now likely destroyed by digging and excavations since the early 19th century. The chamber has also been violently opened in times of old, as appears from descriptions and illustrations from the 19th century (cf. below). Another wooden grave chamber was found beneath the earliest wooden church, holding a re-buried male person. In both chambers were rich grave-goods, however fragmentary. Interestingly, from the chamber in the Northern Mound (or near it) come a few items that appear to be "Christian", including a small cross for hanging from the neck, two mountings (for a book?) with cross motives, and a wooden figure depicting a dragon or snake slayer, perhaps even Christ himself (Krogh & Leth-Larsen 2007, 220f., 239f., and 173f.). The Southern Mound contained no central grave and appears empty, apart from parts of the large ship-setting and a few other structures of various kinds.

An idea of the economic might behind the provincial towns of the 11th century is yielded by the large contemporary farmsteads at Vorbasse and Østergård (Hvass 1986; Ethelberg et al. 2003, 448f.). In fact, Vorbasse gives the whole development of one and the same village from the birth of Christ till about 1100, with the farms being progressively larger in the 3rd and again in the late 7th and, particularly, in the late 10th centuries. Vorbasse is representing the new social energy of the Late Viking Age heralded by the Jelling monuments. This energy found an outlet in the creation of the High Medieval Danish landscape of estates based on permanently located large and small farms and cottages. In this landscape, villages had stopped moving around on their territories when new demands arose. But expansion continued, in the form of new villages of -torp ("secondary village") and -rød ("clearance") types, even founded in the 13th century.

In the late 7th century a series of production and trading sites were founded all over north-western Europe, like Ribe in Denmark (Ulriksen 1994). At Tissø on Zealand (Sjælland) such a site is attached to a magnate farmstead or manor house (Jørgensen 2003). What we are observing

Figs. 3a-b. The first wooden church at Jelling with its chamber grave (after Krogh 1982) (Fig. 3a). A = post-holes; B = inferred post-holes; C = remains of floor-layer; D = chamber grave; E = longitudinal axis of church; F = outline of present stone-church; G = King Harald's rune-stone (broken line represents the previous tilted position). - Analysis and reconstruction by the present author; broken line = limit of upper floor/royal tribune (cf. Appendix II).

here is no doubt a novel stage in estate formation. Estates were becoming more than a series of dependant farms when they began to convert the surpluses of production into manufacture of objects which could be traded: Thus, the interlinked production and trading sites in an emerging international economical system.

Likely the early rune-stones were a part of this game: Conspicuous markers with inscriptions in "high language" signalling new social (and economic) conditions of power in the Early Viking Age (cf. Wamers 1994, for a rare royal grave at Hedeby). In the 10th century, the region around Jelling saw many rune-stones, including those at Jelling related to Danish royalty: King Gorm and Queen Thyra, and their son King Harald, who became so mighty that he "won" "Denmark all" - "and Norway" - and "made the Danes Christian", as is stated on the largest of the Jelling

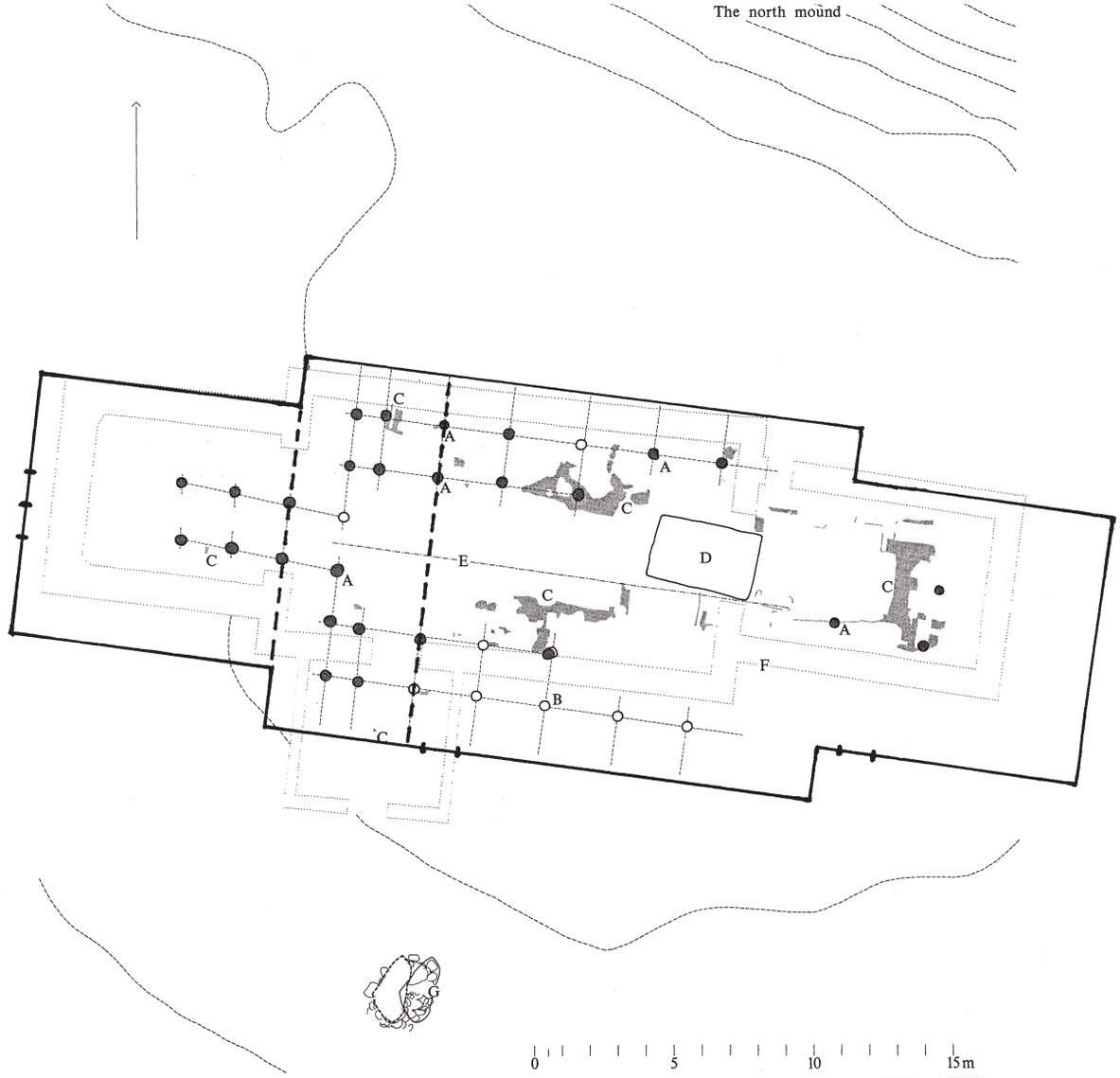


Fig. 3b. Attempt at reconstructing the plan of the first wooden church at Jelling.

rune-stones from the 960s, which also carries a representation of Christ (Jacobsen & Moltke 1942, Nos. 41-42; Randsborg 1980; Jensen 2004). Interestingly, Widukind (925-973+) claims that the Danes were Christian as of old (Widukind III.64f.). The Christian artefacts from the Northern Mound point in the same direction. The explanation might be that Harald was accepting Christ as the strongest deity in the 960s.

As M. Gelting and others have convincingly demonstrated, Archbishop Bruno of Köln (Cologne) (925-65; Archbishop 953-65) was the likely force behind Harald's acceptance of Christianity. Bruno was Emperor Otto I's brother and acting "foreign minister" of Germany. The link to the court at Jelling was Bruno's secretary Poppo (Folkmar), who followed as archbishop of Köln (965-69) (Lund 2004 for various references).

In the early to mid 10th century the North, and not least Denmark, were economically very strong, as the stream of Islamic silver and other imports demonstrate. In the late 10th century Danish kings secured their realm by for-

tresses such as Fyrkat and Aggersborg in the north, possibly the Ravning Enge Bridge across Vejle River Valley, and certainly the Danevirke long-walls on the German frontier in the south, as well as the fortresses of Nonnebakken and Trelleborg - and the Scanian "Trelleborge" - towards the east (Jensen 2004). All these projects have Jelling as their geographical centre. A little later in time, new rune-stones were erected - several of them Christian - in Scania and North Jutland. Scania was now an integrated part of the empire, and the point of gravity moved from west to east - as the many coins minted in Roskilde and Lund (the future seat of archbishop) by King Knud "the Great" (Canute), King Harald's grandson, are demonstrating (Randsborg 1980). In this New Denmark, Jelling played only a modest role.

2. JELLING'S ARCHAEOLOGICAL FUTURE

The new Jelling initiative and archaeological programme, supported by the Bikuben Foundation, should as its minimum sphere of interest encompass the zone within ten-fifteen kilometres from Jelling to establish the development of the Viking Age settlement, including a reconstruction of the natural environment on the basis of geomorphology and pollen analyses. Hopefully, even an even larger area will be considered. A particularly interesting maritime locality is "Skibet" (The Ship) on the lower Vejle River, sitting back in a large watery and heavily forested area, which includes several valleys, including the dramatic one of Grejs River, emanating from Fårup Lake at Jelling. The area is ideal for building and harbouring of ships; it is also protected from direct attacks from the sea. No doubt it served the royal fleet attached to Jelling.

To the west of Skibet is the majestic Ravning Enge Bridge of the 980s and a nearby ring wall, Troldborg or Trældborg Ring (cf. the two "Trelleborg" ring fortress, the one on West Zealand, the other in south-western Scania). However, the small irregular Troldborg is likely a fortified farmstead of the Roman Iron Age (cf. H. Andersen 1992). Another ring wall with the same sort of name is Trælborg, 25 km to the south of Jelling; a hall at this site is of the Migration period, the overlying ring wall later (Voss 1957). An interesting natural fortification, very highly situated in the landscape, is Kollen on the Gudenå River, 35 km north of Jelling (Horsbøl Nielsen 2004). A defensive ditch was dug in the 10th century, and trees felled in c984. Nearby is Sønder Vissing with a rune-stone raised by King Harald's wife Tove, daughter of Slavonian Prince Mistivoj, for her mother (Jacobsen & Moltke 1942, No. 55).

Sites in the Central Jutland region with 10th century rune-stones should also receive attention by the Jelling programme, like Bække (26 km to the south-west of Jelling), with a ship-setting (Jacobsen & Moltke 1942, No. 30). as should localities with particularly rich finds of noble metals or even prominent stone churches of the 12the century. They all probably indicate important manor houses. In fact, the localities of two late 10th century princely graves on nearby Funen - Søllested & Møllemosegård at Hillerslev - are also worth considering (Pedersen 1996), as are Funen localities with important rune-stones, like that of Glavendrup, even with an attached ship-setting (Jacobsen & Moltke 1942, No. 209). The manor house at Ladby, Funen, with the well-known royal ship-grave of the early 10th century, should also be located (Sørensen 2001).

The same is the case of Mammen in North Jutland, with a contemporary princely grave (Iversen 1991). Tamdrup at Horsens, 25 kilometres to the northeast of Jelling, has a fine stone Basilica church from 1100 with superb frescos paralleled in style and date to those of the stone church at Jelling. Tamdrup housed a golden altar of around 1200 with depictions of King Harald being lectured at, demonstrated the powers of Christ (through ordeal by fire), and finally baptized (Schiørring 1991; Haastrup & Egevang 1986, 72f.). In fact, contemporary sources do not indicate that King Harald was baptized when he accepted Christianity (cf. Widukind III.64f.). At Tamdrup remains of an 11th century manor house has been found.

A particular stress should be put on Jelling itself, the monuments, palaces, manor houses, villages and farmsteads. In spite of many previous investigations certain limited operations should be directed towards the two huge mounds, if only to check their state of preservation (cf. below). The rune-stones should be brought indoor for the same reason and copies erected in their place. Other copies should be placed in Copenhagen.

The royal compounds at Jelling may well turn out to have been much larger than even the huge newly found croft, and the number of royal burials higher than that of the huge Northern Mound and the grave under the first wooden church (cf. Figs. 2a-b). Also, we should expect ordinary Viking Age burials at Jelling; hundreds of people must have been engaged in running the estates and erecting the monuments.

In ancient West African kingdoms, for instance, each new king often built a palace of his own. Furthermore, the resting place of a dead king was not necessarily the official tomb (in the framed particular area for royal graves). The question is therefore if the detected Jelling compound is but the ritual area of King Gorm's palace, on which the monumental graves, the ship-setting, the rune-stones, and the church were erected, while King Harald of the large rune-stone resided elsewhere, perhaps on an even larger croft.

Questions are many, as always at Jelling, of which many are to be solved by help of archaeology. Apart from a huge settlement complex and the mounds, new excavations should be carried elsewhere in the area: older archaeologists re-educating the recent generation of fast diggers from the administrative excavations. Jelling is the family silver of Denmark, constantly renewed by each visit to the treasury. Unfortunately, the final reports on the excavations in the late 1970s are not yet fully published, including important information on the wooden churches, and thereby on the acceptance of Christianity (Krogh 1993; Krogh & Leth-Larsen 2007; cf. H. Andersen 1995). Studying the two important publications at hand gives rise to many thoughts, not least since there are obvious errors, some of which are due to recent finds.

The ship-setting, for instance, is now proved to be twice as long as hitherto suggested. It is, in fact, strange that the large stones in the modern cemetery did not give rise to the hypothesis that the ship-setting might have continued well to the north of the Northern Mound. O. Voss is the one exception, when he in newspapers of 1960s commented on the find of a row of large pits - possibly for stones - to the west of the Northern Mound. After all, Dyggve suggested that his pagan "vi", based on the fragmentary stone "V" found under the Southern Mound, continued all the way up to the flanks of the Northern Mound (Dyggve 1942; cf. 1954; 1964). Another overlooked issue is the possible role of King Svend, the son of Harald, and a military genius as conqueror of England. This short presentation and discussion should therefore end by raising new issues.

3. KING SVEND & THE JELLING MONUMENTS

It is chocking that the bones of the unknown re-buried person from the chamber grave under the first wooden church at Jelling have recently been re-buried once again, and *in toto*, under the fine and almost untouchable modern stone art floor of the Romanesque church (Figs. 3a-b). The claim that the person in question is King Gorm is unfortunately not wholly convincing, in spite of the popularity that the hypothesis has won among high and low and how widespread in the literature as well as on the internet (www) it is (e.g., Jensen 2004; but see 582, note 148).

The standard theory is that Gorm is re-buried in the chamber under the first wooden church from the chamber in the Northern Mound upon King Harald's acceptance of Christianity in the 960s (Krogh 1993; but see H. Andersen 1995). King Harald's large rune-stone, the first wooden church, and even the Southern Mound are thus regarded as contemporary.

A series of wooden objects are claimed to relate to the violent opening of the wooden chamber in the Northern Mound. A Carbon-14 date of a spade to 1080+/-100 BP merely gives "Viking Age(+)"[3]; more important is the dendro-date on a secondarily placed twin branch of 964/65 AD (Krogh & Leth-Larsen 2007, 245 & 260, respectively)[4]. If the linkage is correct, the opening of the chamber is as accurately dated as its construction, which is given as a few years earlier, or 958/59+ (cf. Christensen & Krogh 1987; Krogh 1993).

The interpretation is less straightforward, however (if we rule out simple plundering for gain), since we do not know whether something was removed from the grave or entered into it. Since Queen Thyra died before King Gorm (according to the latter's rune-ston), the opening may have taken place to bury Gorm in the large chamber of Thyra. A third hypothesis is destruction of the grave by someone in opposition to the dead person. This is what probably took place at both the famous Oseberg ship-grave of the early 9th century in Norway and the Ladby grave in Denmark of the beginning of the 10th century (Sørensen 2001). Such practice is also known from the Bronze and Iron Ages and from other parts of the world, for instance the kingdoms of West Africa (Randsborg 1998). Finally, in a critique of the translocation of "Gorm", K. Ottosen

3 AD 810-1034 at 66.6%, 782-1034 at 68.2%, 694-1161 at 95.4%, and 657-1226 at 99.7% probability. A dendro-chronological study of the spade merely gave "(rather long) after 924 AD".

4 This important dendro-date is otherwise unpublished; like the others from the Jelling Mounds, it was carried out by K. Christensen (cf. Christensen & Krogh 1987; Krogh 1993). A full publication and renewed discussion of the basis for the dendro-dates is a high priority.

has stressed the fact that according to 10th century theology and liturgy the body of a heathen person could not become Christian by being moved to a church, or, in the present case, to a location on which a church is going to be built. In fact, for a fourth hypothesis, King Harald might even have wished for the bodies - and spirits - of Gorm and Thyra to be removed from their graves at his now Christian palace.

The person in the chamber grave of the church is likely a man, rather powerfully built. Tooth wear etc. indicate an age at death of around 35-40 years (new study of the CT-scans by N. Lynnerup, Panum Institute, University of Copenhagen). Some incisors are missing, as well as many other bones. If we exclude Queen Thyra, in spite of the rather feminine pelvis, Basse (or Bise) - named on a third but fragmentary rune-stone found in secondary position at Jelling (Moltke 1976, 177) - or, for that matter, any other historically known or unknown high-ranking person may be candidates. Saxo (close of the 12th century) relates that King Harald had an older brother Knud who died in Ireland on expedition shortly before King Gorm passed away, seemingly on hearing the news (Saxo IX.11.4f.). Doubts linger though, in particular since the tale is interwoven with a claim that Thyra died after Gorm, which is clearly wrong, as demonstrated by King Gorm's rune-stone for Thyra.

One would actually suggest King Harald "Bluetooth" himself (cf. H. Andersen 1995), a simple solution, even one only based on circumstantial evidence. Harald died in Slavonia after being mortally wounded in an uprising which gave the kingdom to his son King Svend (died 1014). The artefacts from the chamber grave under Jelling Church do not speak against a year of death around 970-75; incidentally the approximate date of the erection of the first phase of the empty Southern Mound cenotaph at Jelling (dendro-date). A princely grave from Mammen in North Jutland is dendro-dated to 970/71 (Iversen 1991, 43f./H. Andersen). The artefacts from this grave bear resemblance in style to King Harald's rune-stone (in "Mammen Style"), as well as to the items found in the chamber grave in Jelling Church.[5] Harald - if in fact the man in the chamber grave under the church - would thus have been born around 935, be 25-30 years at the death of King Gorm, and about 30 at the acceptance of Christianity in the 960s.

That King Harald is buried in Roskilde is a construction from the late 11th century by Adam of Bremen (c1-040-c1081), as N. Lund has demonstrated (Lund 1998). Even the pillar in the later cathedral supposedly holding Harald's bones is empty. Also Harald's long life is Adam's construction, placing Harald as a parallel to Archbishop Adeldag of Hamburg (937-988).

Harald disappears from the reliable written sources after the 960s (cf. Widukind; Thietmar). On the other hand, the son Svend only appears in the 990s but may well have been king earlier; perhaps the German attack on Denmark in 974 is a reaction to Harald's violent death (Appendix I). This would make Svend the builder of the Trelleborg fortresses plus, of course, the conqueror of England: An indeed interesting return to former ideas about a connection between the fortresses and the campaigns in England, resulting in the Danish conquest (Appendix III).

The huge Southern Mound cenotaph is very interesting. Geophysical anomalies at the northern edge, but still in the axis (defined by the two mounds and King Harald's rune-stone right in between), should evidently be investigated (H. Andersen 1994). The anomalies seemingly represent an about 25 m^2 large roundish heap of stones of unknown function. A suggestion, perhaps, is a heathen sacrificial site ("hørg") as has been found at Lejre on Zealand, though much larger (cf. Capelle & Fischer 2005, 131ff./L. Jørgensen, for Tissø).

The big wooden chamber of the Northern Mound is sunk into an older mound (likely of the Bronze Age). Importantly, the attached ship-setting must - to judge by its considerable width - have been erected after the Northern Mound was fully built to a height of 8½ metre and a diameter of 65 metre. As suggested, the chamber grave of the Northern Mound should likely be linked with King Gorm one way or the other. However, the find of an end board for a wagon body in the chamber might suggest that at first Queen Thyra (after 958/59), then King Gorm (before 964/65), were buried in the chamber, since prominent women were commonly given wagon bodies for coffin in the 10th century (Krogh 1993, 97f.; cf. Müller-Wille 1987, 26f., 140f.; for a newly discovered male grave, Lindblom 2008).

The Northern Mound would thus have been completed by King Harald and the ship-setting erected after 958 (according to the dendro-date of the pertaining chamber

5 Artefacts from the chamber grave in the Northern Mound in part define the typologically older "Jelling Style" (cf. Pedersen 1996). In fact, the two groups may represent the court styles of Kings Gorm and Harald, respectively. King Svend, or perhaps rather King Knud, may have been behind the Ringerike style. A contemporary English style of Knud (and others) is the Winchester Style.

tomb). Harald's large rune-stone from the 960s is placed in the main axis of the ship-setting to the south of the Northern Mound, and harmoniously balanced against the lines of the stone monument. The original position of King Gorm's stone is not known.[6]

The Southern Mound is erected as a parallel to the Northern Mound in the 970s (first phase), and in such a way that King Harald's large rune-stone is standing at the mid-point between the centres of the two mounds. The cenotaph is covering part of the ship-setting. On the one hand, this is a demonstration of continuity - one doubles the Northern Mound; on the other, it is the matter of a negatively loaded disturbance of the ship-setting. Both mound and ship-setting are traditional, non-Christian symbols. Incidentally, this interpretation recalls Dyggve's suggestion that the heathen "vi" was destroyed by the Southern Mound erected in connection with the acceptance of Christianity.

It is therefore suggested that the cenotaph Southern Mound was erected by rebellious King Svend - perhaps as a traditional monument for Harald, but rather to honour the grandparents; this may also explain the traditional, although rather late, names for the mounds: Thyra's Mound (north) and Gorm's Mound (south) (cf. Saxo X.6). The erection of the Southern Mound is taking place in opposition to the ship-setting and thus to Harald as agent in the history of the monuments. Nevertheless, Harald's rune-stone still holds a central place in the overall monument. In this way, Harald's family and domestic, as well as national, position is acknowledged by King Svend, as is his role in the acceptance of Christianity.

4. THE FIRST WOODEN CHURCH

That the wooden church is a later addition to the Jelling monument seems clear from its "squeezed" and somewhat askew position between Harald's large stone and the mighty Northern Mound. The church, which is very large - in fact, a cathedral in size - has parallels among several 11th century wooden churches in Denmark with rows of internal roof-supporting posts near the long walls in a Basilica fashion (Liebgott 1989, 179 Fig. 141; Hauglid 1976, 144f., cf. Fig. 139; Wieczorek & Hinz 2000 for early churches from Central Europe; cf. the general corpus in Ahrens 2001) (Figs. 3-5; Appendix II; Table I). Unfortunately, there is no 10th century material in Denmark for comparison. At Jelling there are even two rows of internal posts in the nave - like the double Basilica of Old St. Peter, Rome (e.g., Clapham 1930, 8 Fig. 3) - if we suppose that the outer rows are freestanding and not parts of the long walls. Such interpretation is confirmed by fragments of the floor layer beyond the outer posts.

The slightly askew posts to the west may look like supports for beams to carry church bells, but since they are very powerful and so to say "built into the structure" they rather represent a staircase - in fact a whole staircase tower, as a fragment of the said floor layer in this area would indicate; the entrance would have been to the west, perhaps the direction of the entrance to the croft or even of the royal palace itself. The staircase was giving access to a second level, revealed by the fortified western end of the nave where the posts are closer to one another. Certainly, the church at Jelling - likely of about 450 m^2 at ground level, and 39 metres long (width 13½ m) - must have set a standard for all large churches in Denmark before the coming of stone, and even beyond (Fig. 4). The first wooden church at Jelling is also of the largest wooden churches in Europe, at least in pre-modern times (cf. Ahrens 2001). Its height, although difficult to estimate, was certainly bigger than the two huge mounds.

Actually, the reconstructed plan of the first wooden church at Jelling is equivalent in proportions to one of the earliest (but much smaller) stone churches from Denmark, located at St. Jørgensbjerg near Roskilde and likely built by English stone masons in the late 1030s (Olsen 1960) (Fig. 6). Like Jelling, St. Jørgensbjerg has the characteristic wide choir found on Anglo-Saxon churches. Late Anglo-Saxon English churches may also have a western *piano nobile*, like St. Mary at Deerhurst near Gloucester (Taylor 1975). In fact, even the first Salvator/Trinitatis ("Drotten") Church in stone at Lund has a structure similar to the first wooden church at Jelling (Cinthio 1997; 2002; 2004). Depending on its date, this church might have been erected by King Knud (Canute), meant for the secondary burial of the body of his father King Svend. This church also seems to have had an upper level to the west, and eventually a west tower. It was perhaps built around 1020/30, but there is no confirmed date.

The large Carolingian Corvey Abbey basilica at Höxter on the Weser in Northwest Germany, with its famous

6 The above-mentioned stone-setting in the Southern Mound is a rather unlikely but not wholly impossible candidate. Incidentally, it seems to hold the same distance to King Harald's rune-stone as the latter to the edge of the Northern Mound.

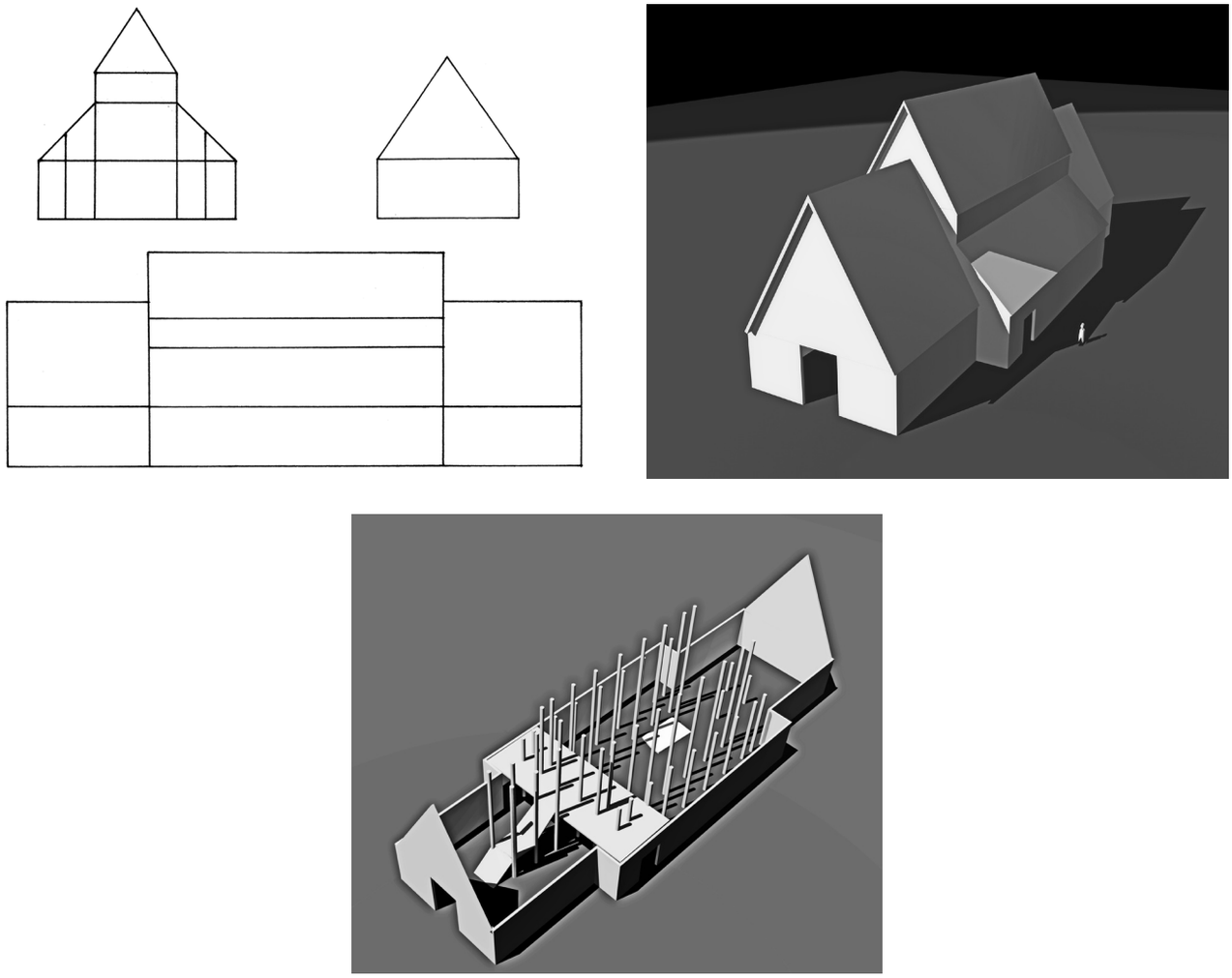


Fig. 4. Attempt at reconstructing the first wooden church at Jelling. The structural cross-sections of the church are reconstructed on the basis of the plan in Fig. 3b, in spite of great uncertainty concerning its heights. The concomitant uprights of the long walls of the church are also presented, as well as an equally simplified 3D edition of the church.

so-called westwork and upstairs imperial tribune (873 AD), may also be called upon as a model (Taylor 1975; Toman 2000, 36f.). A related structure is St. Pantaleon in Köln (964+ AD) built by Archbishop Bruno, who was likely behind King Harald's acceptance of Christianity (Braunsfeld 1981, 51; Toman 2000, 43). Quedlinburg Abbey (west of Magdeburg) from the close of the 11th century, a very beautiful basilica with an exquisite upper level in the west, is taking such architecture into the high Romanesque age, and in fact on to Danish churches of this period (Braunsfeld 1981, 411f.). Certainly, the first church at Jelling is a stone cathedral in wood.

It is difficult to escape the impression that the first church at Jelling cannot be from the age of King Harald but must later. Perhaps it is contemporary with the common hall structure from around 1000 AD on the former site of the big palisade fence connected with the ship-setting (cf. Mohr Christensen & Wulff Andersen 2008, 8) (Figs. 2a-b). Incidentally, the church, the said hall, and the second palisade fence all have the same orientation. The relative age of the second fence and the hall is not known, however.

If English impact is involved, this ought to be of the close of the 10th century, or even later. Harald may well

have erected a court altar or chapel but hardly the basilica under discussion. Rather the situation resembles Lisbjerg near Århus, Jutland, where the church is erected on the croft of a Late Viking Age manor house (Jeppesen & Madsen 1995-96; Jeppesen 2004). The excavator of the wooden church cautiously supposed that he found the same sort of levelling fill at Harald's rune-stone as under the church (Krogh 1982, 211f.). This may be as it is and does not necessarily make the two elements contemporary. Perhaps it informs of a general levelling of the area in connection with the erection of King Harald's stone.

At any rate, with the erection of the church, King Harald's stone attained a second function, namely as a marker of the likely southern common entrance to the nave. In fact, the rune-stone explains the peculiar location of the church. Finally, as indicated, King Harald himself may rest in the chamber grave under the church, re-buried by the son Svend, who died in 1014; or even by the grandson Knud (Canute), who died in 1035 (cf. H. Andersen 1995). Svend died in England and was at first buried in York Minster, then in Denmark (Roskilde, or perhaps rather Lund), thus marking the new eastern area of gravity of Denmark, which was to remain so. Knud's bones are still in Winchester Cathedral.

This essentially novel overall model seems to cover all know facts. Whether it stands the test of time and new investigations is rather more doubtful. Notably, by accepting this model we do not have to explain how the re-buried body of the supposed "King Gorm" found in the chamber grave in Jelling Church had nearly completely decomposed in the few years between "after 958" and the (early) mid-960s. Rather, the huge wooden church and its prominent re-burial might be from the 980s or around 990: after the building of the Trelleborg fortresses but before Svend's campaigns in England: King Svend securing his empire and honouring his dynastic obligations before going abroad for conquest. A few years later the attention was on Roskilde and in particular Lund (cf. Andrén 1985).

A later date of the first wooden church of Jelling, to the reign of King Knud (Canute), or even to King Svend Estridsøn (reign 1047-74/76), is less likely. Svend Estridsøn was the organizer of the Church of Denmark, from its eight bishoprics - Slesvig, Ribe, Århus, Vendsyssel region, Odense, Roskilde, Lund and Dalby - and down. At Lund, dendro-dated wooden Basilica churches are of around 1050 (cf. Table I). Remains of a wooden Basilica with a *post-quem* coin date to the reign of Svend Estridsøn have been found in Odense. This church was erected on the site of an earlier burned down wooden church, supposedly the one where King Knud "the Holy" (reign 1080-86) was killed in 1086 (Eliasen et al. 2001, 1736f.).

The cathedral size Basilica at Jelling would certainly befit a bishop (and a king). However, the 10th century German written sources do not know of a bishop of Jelling, only of Slesvig, Ribe, and Århus (948); and of Slesvig, Ribe, Århus, and Odense (988). However, these bishops may never have visited or even resided in Denmark. A bishop of Ribe of the early 11th century is mentioned by Adam of Bremen. The former had a Danish name, Odinkar (which is even heathen); Jelling District would likely have belonged to the see of Odinkar, or Ribe, as it certainly did later on.

The implication of this notion is also that the first wooden church at Jelling is of the end of the 10th century. However, the clerical ambitions were seemingly not met by nomination of bishops for Northern Jutland seated at Jelling (dioceses of Ribe and Århus and perhaps Odense as well); in fact, even Hedeby/Slesvig may have been due for inclusion, perhaps in a dream of an archbishopric. At any rate, the large first wooden church of Jelling towered over the traditional monuments at the site.

Finally, the highly prestigious very long wooden two-lane Ravning Enge Bridge is perhaps also a piece in this game. The bridge is dendro-dated to "after 980" (the statistical average being 986+/-) (Christensen 2003, cf. 220 Fig. 3). From Swedish rune-stones of the 11th century we know that building of bridges was considered a Christian act, securing access to the holy structure at all times of the year; several rune-stones even stood at bridges (Wilson 1994, 44). The Ravning Enge Bridge may thus have been constructed to serve the ambitious cathedral at Jelling. Certainly it was not built at the narrowest crossing. Archaeologically, one might claim that the bridge is dating the erection of the church.

It is quite possible that the cross type half bracteates coins, or at least one or more series of these from the final quarter of the 10th century, are contemporary with the first wooden church at Jelling (Malmer 1966, 229f.). These coins may well have been produced at Jelling around 980-85 in celebration of the cathedral rather than the much earlier acceptance of Christianity by King Harald. Certainly they are earlier then the first English impact on Danish in the 990s.

5. WIDER PERSPECTIVES

In conclusion, the Jelling monuments should be interpreted jointly and in their full context (Table II). They are symbolic expressions of a complex game of political "checks-and-balances", across three or more generations, where the stakes were the Danish empire. By implication, the ramifications are felt to this very day. Denmark is still - however heavily reduced in area by Swedish and German conquests - an independent nation: Even one of the best organized and wealthiest in Europe and the World, and certainly one with the least social problems.

Even more important than the long-term perspective are two other issues, which should also be tacked by the Jelling programme. The first one is the relationship in the 10th century between east and west in Denmark. As demonstrated already many years ago, Jutland and Funen and perhaps westernmost Zealand (indeed, the Greater Belt area) seemed to form a unity in a number of respects, in particular as studied from archaeology (Randsborg 1980). This implies that Zealand and Scania, regions of gravity from the 11th century onwards (as well as earlier), should also be considered when studying the Late Viking Age. Jelling is the core of a particular formation of kingdom or empire. But how were the other parts of Medieval Denmark integrated into the realm by Kings Harald, Svend, and Knud? Culturally, the regions were already integrated, and had long been so, but politically certain measures must have been put to work, in addition to ongoing estate formation, even colonization by the elites: archaeologically accompanied by a new type of hall, the prestigious Trelleborg hall.

The measures were doubtless those of dominance, instrumented by the same kings. Trelleborgs, in structure resembling the ones in the west but less strict in composition and manufacture were built in Scania. The runestone "custom" was extended to Scania around 1000 (likely with a novel group of royal magnates). Cities were established across Denmark around 1000 and in the 11th century, including Roskilde and in particular Lund, where most of King Knud's minting was taking place. Obviously, the conquest of England and the new flow of wealth helped integrate the country and fortify its imperial character. The church was another useful instrument of dominance. Great Basilica cathedrals and other churches were constructed by kings and magnates, not only at Jelling but in particular at Lund. An organization of parishes followed in the late 11th century. At that time, stone churches had already begun to replace the wooden ones. On could continue, delving into military affairs, for instance, or the marvellous ships. What is summing it all up is a vision of empire engulfing earlier forms of kingdom.

The second important issue is the relationship between Denmark and the other kingdoms and empires surrounding the country. Obviously, Germany was the one great power always to consider. Slavonia as a whole remained on the principality and alliance level for a long time to come, even though kingdoms were evolving and consolidating themselves, in Bohemia under German impact, and in Poland. The most successful new entity was probably Russia; Hungary is a special case, even introducing a new language into Central Europe.

Sweden was then relatively far away from Denmark, while Southern Norway in many respects should be considered another region integrated into the Jelling Empire. England (and the British Isles) was important to Denmark, but most of France less so, except for Normandy - the Normans eventually building a new empire in England as well as expanding into the Mediterranean. At any rate, Denmark could not extend its measures of dominance to these regions, nor did the country try to expand its influence in the North Atlantic, leaving that to the remoter parts of Norway - the "Northern Way" - and eventually to a stronger Norwegian kingdom.

Far away, but with Christianity also a part of the Danish orbit, Rome (with Pope), and Constantinople, the centre of the Byzantine Empire, remained important. In Constantinople, military experience was valued; Scandinavian warriors served the emperor and no doubt brought back home Byzantine dresses and values, but not the "Greek" religion. By 1000 direct contacts with the Islamic World, so important in the decades around 800 and in the early 10th century, had almost ceased, to judge by the coins. Russia rose as a new middle man (as did the Spanish kingdoms and Italian cities). Russia supplied Europe with the produce of the great forests: fine furs and wax (for candles). Europe was becoming an entity onto itself, and Denmark was finding its place in the patch-work of empires, kingdoms and principalities - all of them competing dominance systems using various types of symbols of status and power.

In spite of a heavy Scandinavian involvement through the ages, never again did Denmark experience an expansion such as that of Kings Harald, Svend, and Knud - of Jelling: Thus, the ongoing debate about the centre and its character.

APPENDICES

APPENDIX I. THE GERMAN ATTACK OF 974

In the spring of 973, Danish ambassadors participated in the Imperial Easter meeting at Quedlinburg west of Magdeburg shortly before the death of Emperor Otto I (Thietmar, etc.; Ranft 2006) (Table II). Participants came from Denmark, Poland, Bohemia, Hungary, Bulgaria, The Pope/The Papal States, Benevento (in Southern Italy), Byzants, and the Spanish Caliphate: a truly remarkable gathering of almost EU proportions. Nevertheless, Christian Western Europe was not represented. The omission underlines Denmark's political position of balance (and strength) between The West, in particular England, Germany, and the Slavonian principalities. Denmark's position was also central regarding the rest of The North. Southern Norway should in many ways be seen as an extension of Denmark (cf. King Harald's claim on the large rune-stone). Sweden was farther away, behind large stretches of thinly populated lands.

ATTACKS & DEFENCES

The following year, likely rather early, Denmark was attacked by Emperor Otto II, according to an only slightly later and well-informed German written source, Thietmar (975-1018). Thietmar reports that "the Emperor hurried to Slesvig to attack the rebellious Danes" [obviously something had happened on the Danish side] (Thietmar III.6). He found the Danes in weapons, "manning the ditch [*fovea*] made for defence of the country and the gateway called Wieglesdor"[7]. "Upon advice" from his senior followers - Duke Bernhard of Saxony and Count Heinrich of Stade, Lower Saxony, the grandfather of Thietmar - the Emperor conquered "all these fortifications". This may be correct, or an exaggeration.

At any rate, this much sounds like an attack on Danevirke or a part of Danevirke, perhaps the front Kovirke long wall, which in German is actually called "Kograben", "Graben" meaning ditch (cf. H.H. Andersen 1998). The Kovirke Wall is only Carbon-14 dated, seemingly to the (late?) 10th century. However, it is often considered to be older. The reason is a description in the Frankish Imperial Annals of King Godfred's defensive wall of the year 808 AD; this wall had only one gateway, it was said (Rau 1974, 87f.; cf. "Wieglesdor" above). A wall phase with certainty dated to around 800 has not as of yet been located in the Danevirke system.

The ruler-straight and highly regular Kovirke Wall displays only one phase of construction and therefore much looks like an ad-hoc installation in preparation against a particular threat and line of attack (H.H. Andersen 1998, Pl. 23). The builders were likely an army under command. A narrow gateway has been located. At any rate, 10th century Kovirke was built in connection with a Danish military operation to safeguard Hedeby and doubly protect Danevirke against German (or Slavonian) assaults.

The Danevirke wall system was strengthened in 965/968 (dendro-dates), by linking the large so-called Main Wall to the heavy wall around Hedeby town. Interestingly, this is the exact time of King Harald's acceptance of Christianity. Obviously, the king is safeguarding his country in spite of - or even because of - the recent understanding with Germany in terms of the status of Christianity.

Kovirke may have been constructed at the same time (the Kovirke gateway may even be the "Wieglesdor" of Thietmar). More likely, however, it should be considered in connection with the Trelleborg fortresses of the late 970s, since Kovirke has the particular deep V-shaped ditch found at these installations. In fact, Kovirke may be the result of events leading to the German attack of 974. The wall may also, but this seems less likely, be connected with the military operations leading to the Danish attack to the south of Danevirke in 983 (cf. below). At any rate, Kovirke is creating defence in depth at Danevirke and Hedeby.

The only other piece of information by Thietmar in connection with the attack on Denmark in 974 is that "the Emperor founded a fortress (*urbs*) at the border and secured it by help of a garrison". No such fortress is known from South Jutland. It may have been situated in Holstein,

7 It has previously been claimed that the "ditch" is the Ejder River (Latin "Egidora") to the south of Danevirke and Slesvig/Hedeby, with the argument that "Wieglesdor" is a so-called kenning (circumlocution). This is not likely. Interestingly, The Frankish Annals for 808 are speaking of King Godfred's wall in terms of a defence rampart on the entire northern bank of the Ejder River, in spite of the fact that the Ejder is some 25 kilometres to the south of Danevirke (Rau 1974, 87f.).

for instance at Itzehoe in the south-west (from where fortresses are known), or even at Rendsborg on the Ejder, strategically a fine position (but no fortress is known from there). To suppose that the German "fortress" was Hedeby itself seems quite unlikely for a number of archaeological as well as other reasons. Rather than a symbol of Danish subjugation, the erection of the German fortress - likely in Holstein - may have covered a *de facto* retreat from the Danish frontier (cf. below).

The German attack of 974 much looks like a demonstration of power, possibly after the death of Otto I 973, but more likely in response to a shift of power in Denmark, where King Harald - a friend of Germany and the church, one supposes - was deposited by a rebellion. If so, King Harald must have died in 973, or in 974, at the latest.

WIEGLESDOR

Likely, the above "Wieglesdor" in Thietmar is German for Vigleksdør. Viglek is a Danish Saga King; his Latin name is Wiglecus (Saxo IV.2.1). "Ie" has the same sound in German as "i" in Danish (cf. "ee" in English). Dor (modern German "Tor") = Danish "dør", i.e., gateway (cf. English "door").

According to Saxo, Wiglecus was upset that Amlethus ("Amlet", cf. Shakespeare's Hamlet) had conquered Jutland. With support from Zealand and Scania, Viglek killed Amlet in battle. The son of Viglek was Vermund, whose grandson Uffe fought the Germans on the River Ejder, the very Slesvig frontier to the south of Danevirke (Saxo IV.4). Possibly a gate in the Danevirke walls, or rather in the front Kovirke wall, was so named to carry a highly relevant reference to these tales, certainly known in the 10th century, as well as to crucial contemporary affairs.

RUNESTONES

A couple of rune-stones at Hedeby may refer to fighting between German and Danish forces. The first stone is raised by Thorulv, member [most likely as an officer] of the personal guard of King Svend, for his fellow Erik, who was killed, when "drenge" [literally "boys", here warriors] were sitting around [likely, laid siege to] Hedeby; and he [likely, Erik] was a sea commander, a very high-born "dreng" (Jacobsen & Moltke 1942, No. 1). The other stone is raised by King Svend for the member of his personal guard [likely an officer] Skarde, who had gone West, but now found death at Hedeby (Jacobsen & Moltke 1942, No. 3).

The monuments belong to a type of rune-stone postdating the Jelling rune-stones of Kings Gorm and Harald. The King Svend mentioned on the Hedeby stones can hardly be any other than the son of King Harald. The event is unknown, and several hypotheses have been put forward.

The hypothesis proposed here is that it is the matter of a Danish attack, likely a counterattack connected with the German assault of 974. The attack may have been spearheaded by a navy squadron under the command of King Svend going into the Sli Inlet (cf. the "sea commander" on Thorulf's rune-stone above). It is also possible that the Germans did penetrate Danevirke, or, for a minimum, Kovirke, in 974 but Danish fighters held out behind the heavy walls of Hedeby. The two rune-stones were raised in the open field to the south of the eastern part of the Connection Wall and Hedeby (but north of the Kovirke Wall), perhaps where the two commanders were killed; certainly, this is not where their estates were situated (as with other rune-stones). Supposing that the German conquest of "all these fortifications" in 974 was a boast and only involved Kovirke, this would explain a battle exactly in the area of the rune-stones.

The hypothesis that the battle at Hedeby mentioned on these rune-stones was linked with the Danish capture of the above-mentioned German "fortress" in the year 983 is less likely. Of course, several other scenarios are also possible, as well as yet other dates for the fighting.

ATTACK OF 934

The lack of a double defence line must have been sorely experienced in 934, when German King Heinrich I subdued Danish King Gnupa, after the Danes had attacked the Frisians, and forced the king to accept baptism (Widukind I.40). Gnupa is connected with two rune-stones at Hedeby, also mentioning King Sigtryg, a son of Gnupa (Jacobsen & Moltke 1942, Nos. 2 & 4) (cf. Table III for Adam's relations). The stones are raised by Queen Asfrid, daughter of Odinkar, mother of Sigtryg. One of the stones relates that Gorm wrote the inscription.

Names of the "writers" of rune-stone inscriptions are rarely mentioned. But the writers seem to have had a high status and should not be confused with the artisans actually cutting the letters. On the famous Early Viking Age rune-stone from Rök, Östergötland in Sweden, the writer

appears to be the father of the dead person (Jansson 1976, 36f.).[8] On Glavendrup, Funen (likely of the early 10th century, and with a ship-setting) the dead person is the lord of the writer (Jacobsen & Moltke 1942 No. 209). On the late rune-stone from Tillitse, Lolland the writer is a step son (Jacobsen & Moltke 1942, No. 212).

Gorm of the Hedeby stone is no doubt a person close to Queen Asfrid and King Sigtryg, likely a member of the royal house, even of the royal family, and - a wild guess indeed - the future king of the Jelling rune-stones. The unusual promotion of Thyra on the two Jelling rune-stones and likely on other stones as well (Jacobsen & Moltke 1942 Nos. 29 & 33) might indicate that she is of the royal family, and that Gorm was acquiring his particular status through marriage to her. Perhaps the much discussed praise on King Gorm's rune-store for Thyra should again be read "Denmark's Remedy", rather than "Denmark's Adornment" (Moltke 1976, 162f.).

It has been suggested that the first defences at Århus date to "the early 930s" (advanced Carbon-14 date) (Damm 2005, 16); a second phase is dendro-dated to "sometime after 957" and "before or at 980". At Ribe, the first defences are possibly from the early 10th century (Feveile 2006, 48f.). The earliest fortification around Hedeby is considered to be of the middle or rather the first half of the 10th century (Elsner 1992, 38; H.H. Andersen 1998, 133f.).

In other words, it is just possible that the first fortifications of the three main towns in Jutland are of the same period and may relate to the German intimidation of 934. The military logics behind such fortifications are on the one hand protection, on the other starvation of enemy operations. King Alfred's fortified "burhs", constructed against roaming Viking armies, served exactly this purpose, whether the Danes wished to trade in the towns, or to plunder them (cf. Randsborg 1998A). Seemingly, Danevirke was not strengthened in the early 10th century (H.H. Andersen 1998; cf. 2004).

ATTACK OF 983

Regarding the year 983, Thietmar reports that Duke Bernhard - *en route* to an Imperial meeting in Verona - turned around, "because one of his fortresses (*urbs*) …, which the Emperor had secured against the Danes by wall and garrison, was once more sneakily conquered by those and burned down after the defenders were killed" (Thietmar III.24). Likely, it is the matter of the same fortress as the above-mentioned one from 974+ in the border lands between Denmark and Germany.

Interestingly, 983 is also the year of the great Slavonian rebellion against the German emperor and Christian institutions in the (northern) March. The revolt threw the Germans back across the Elbe until the early 12th century: estates, towns, and churches. Obviously, the Danes were linked with the revolt or used it to expand their own influence to the south of Danevirke and the Ejder River. The Danish attacks on England from the 990s onwards were thus taking place without a massive threat from Germany.

In fact, with a strong Danevirke, and the Trelleborgs, Denmark might have been likened to a veritable fortress, even patrolled by navy squadrons (cf. Appendix III).

8 Rök carries an indeed very long inscription, which even mentions Zealand and Theoderic the Great (454-526), king of the Ostrogoths and ruler of Italy.

APPENDIX II. THE FIRST WOODEN CHURCH AT JELLING

The reconstruction of the first wooden church at Jelling takes as its point of departure the plan published by the excavator (Krogh 1982, 195 Fig. 12) (Figs. 3a-b; Table I)[9]. It is acknowledged that the characteristic floor layer established by the excavator as lying under the original wooden floor of the church was also found beyond the outer lines of posts dug into the ground. This indicates that the outer walls of the whole structure were positioned beyond the lines of roof-supporting posts. Perhaps, the planks of these walls were nested in a horizontal beam lying directly on the ground (cf. the late construction in Christie 1981, 153; 169f.), or simply dug into the ground, as the churches in Lund and elsewhere (cf. Fig. 5). Likely, these wall lines were disturbed by the stone church and later digging, but there is still a chance to find elements of the first wooden church outside the stone church.

UPPER FLOOR & OTHER ELEMENTS

In the western end of the nave, several pairs of posts with only a narrow space in between indicate a demand for support of an upper level likely covering one fourth of the nave. The upper level was seemingly reached by a monumental staircase represented by the posts to the west of the nave, probably housed in a square tower (again to judge by the floor layer). The open part of the nave is reconstructed as a (near) square (a perfect square if the edge of the upper floor is extended a little towards the east). This allows for the single known post in the longitudinal axis of the church (marked with an "A") to the east of the chamber grave to stand at the border line between nave and choir. It is also seen that there is space left in the south-eastern part of the nave for one more chamber grave next to the excavated one (for King Svend?).

The choir is reconstructed as a square narrower than the nave. It is defined by the outer lines of posts in the nave, in accordance with other large wooden churches where the line of wall is preserved (cf. Fig. 5). The remaining two posts in the choir likely belong to an internal division, or are roof-supports, likely four posts arranged in a square, or a similar arrangement (eight posts in a rectangle?).

Finally, going back to the west tower, the choir may have set the size of the former, making it large enough to serve as a hall (*narthex*), even though there is no firm evidence. This would yield symmetry to this magnificent structure. Actually, such plan is near identical in proportions to the one of one of the oldest stone churches in Denmark, the much smaller St. Jørgensbjerg at Roskilde, which was likely built by English architects in the late 1030s (Olsen 1960, 9 Fig. 5) (Fig. 6).

Three doorways are suggested: staircase tower (royalty, on special occasions) - likely towards the west and the main palace at the time (but it may also have been in the southern wall); nave (main entrance) - in the southern long wall at the westernmost part of the open nave and opposite King Harald's rune-stone; and, choir (clergy) - western part of the southern long wall. The oblique staircase allows for easy access to both levels from a western entrance.

Due to the second level, the nave must have been quite tall and in this resembled the well known superbly preserved Norwegian stave churches (of the late 12th century), even though the roof at Jelling was likely comparatively lower (Christie 1981; cf. Ahrens 2001). The earliest of the Norwegian churches is Urnes, from about 1130, incidentally giving name to the last of the traditional animal ornamental styles on the base of elegantly carved, but likely re-used timbers. One or more predecessors of Urnes Church, dated to the 11th century, had old-fashioned roof-supporting posts dug into the ground like the first wooden churches at Jelling (Krogh 1971).

A BASILICA

The roof is a particular problem. A large saddle roof is the simple solution, but the roofs of the Norwegian churches are more intricate. The basilica reference would, if taken at face value, indicate a main roof with at least one half-roof on either side. Adaptation to the requirements of the second level must also be taken into consideration.

The double rows of posts in the nave may even give rise to the hypothesis (however less likely) that narrow upper floors were also found on the long-sides, on either side of a rather limited open nave. One might even reconstruct the plan of the nave symmetrically with pairs of posts with only a narrow space in between also towards the east. But in this case the single post to the east of the chamber graves does not find ready explanation, and the

9 Ahrens' reconstruction is simplistic and does not take into consideration the actual area of the floor level (cf. Ahrens 2001, 202f. (Katalog)).

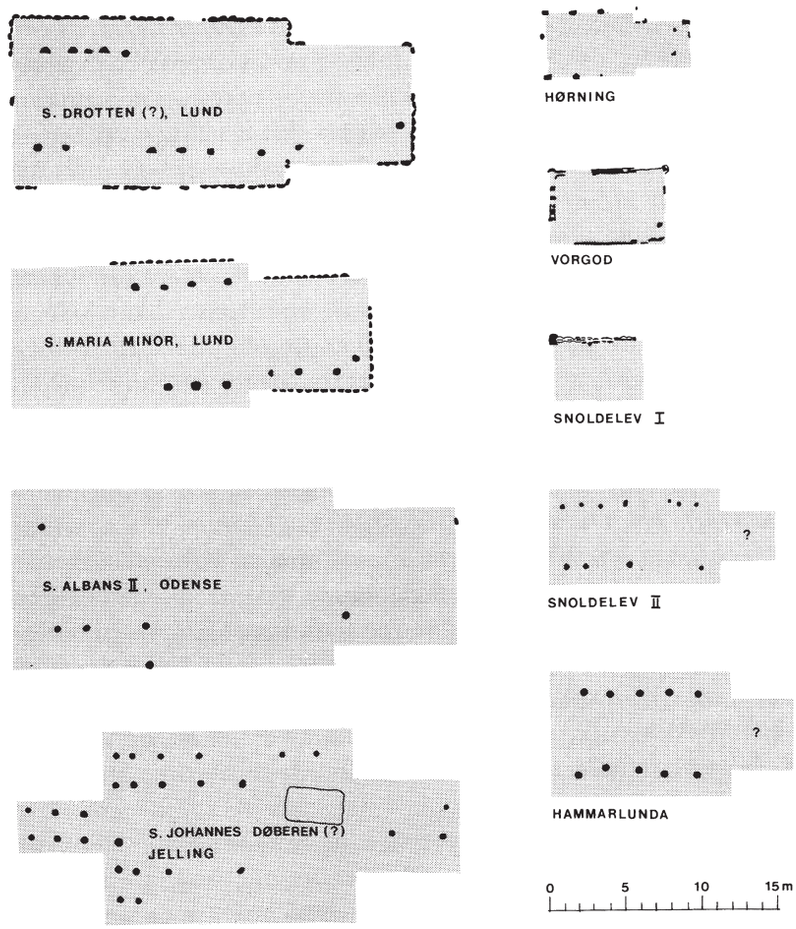


Fig. 5. Plans of Danish wooden churches of the 11th century AD (after Liebgott 1989): The Basilicas on the left are also presented in the Table I. The smaller churches on the right are likely with common saddle roofs.

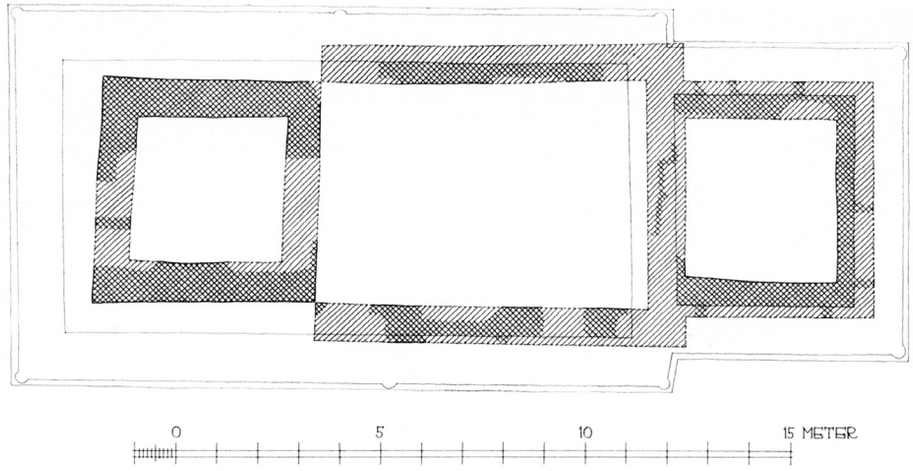


Fig. 6. Foundation ditches of St. Jørgensbjerg Church (stone) of the late 1030s (after Olsen 1960).

whole space is less harmoniously conceived. Excavation outside the stone church may provide further clues, although this is less likely. Incidentally, as the reconstruction stands, it is structurally not dissimilar to the symmetrical so-called Trelleborg halls.

At any rate, the first wooden church at Jelling is a highly advanced piece of wooden architecture finding parallels in high class dwellings of the mid-11th century, like Østergård in South Jutland (Ethelberg et al. 2003, 440 Fig. 5:3; 442 Fig. 5). In the present reconstruction, the church is about 450m² at floor level and 39 metres long (width 13½ m): one of the largest wooden churches in Europe in pre-modern times (Fig. 4). Its height, although difficult to estimate, was certainly bigger than the two huge mounds. The quality of work is very high indeed and is reflecting knowledge of both wooden and stone architecture. The decoration has no doubt been lavish, as demonstrated by the evocative painted wood-carvings from the Northern Mound, and by the Norwegian churches (Krogh & Leth-Larsen 2007).

In Table I, the measurements of the first wooden church at Jelling are compared with those of other wooden Basilica churches as well as smaller wooden churches from the city of Lund (all of the 11th century) and other localities in Denmark (cf. Ahrens 2001; etc.).

APPENDIX III. *ENCOMIUM EMMAE REGINAE* ON KING SVEND

Encomium Emmae Reginae or *Gesta Cnutonis Regis* (writer unknown, but likely from the monastery of St. Bertin at St. Omer, near Calais) of 1041/42 is an illustrated book produced in honour of Queen Emma of Normandy, wife of King Knud (Canute), the son of King Svend of Denmark. It reports the following on the nature of Svend (cf. Campbell 1998, 9f.):

... The army, grieved by this, deserted the father [King Harald], adhered to the son [Svend], and afforded him active protection. As a result they met in battle, in which the father was wounded, and fled to the Slavs, where he died shortly afterwards. Sveinn [Svend] held his throne undisturbed. ... When Sveinn was at peace, and in no fear of any attack by his foes, acting always as if in danger, and indeed of pressing danger, he attended to the strengthening of any positions in his fortress[10], which might not have resisted hostile forces, should they have appeared, and, preparing everything necessary for war, he permitted no remissness in his men, lest their manly spirit should, as often happens, be softened by inactivity. … (Book I.1).

And so when in the continuity of a settled peace all matters were turning out favourably, the soldiers of the above-mentioned king, confident that they would profit by the firm steadfastness of their lord, decided to persuade him, who was already meditating the same plan, to invade England, and add it to the bounds of his empire by the decision of war. … (Book I.2).

10 Denmark, with the Danevirke walls at the foot of Jutland, the Trelleborg fortresses, armed units across the country, and naval squadrons would indeed have seemed like one big fortress by the year 900 AD; however, also equipped for attack (cf. Appendix I).

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TABLES

Table I. Early Basilicas and smaller/simpler wooden churches from Jelling, Hørning, Vorgod, Sebbersund, Odense, Svorgerslev, Hammarlunda, and Lund, Denmark: Measurements in metres; approximate dates in brackets (cf. Ahrens 2001; Christensen & Lynnerup 2004; Cinthio 1997; 2004; Jeppesen & Madsen 1995-96; Krogh & Voss 1961; Møller & Olsen 1961; Nielsen 2004; Thaastrup-Leth 2004; etc.) (Cf. Fig. 5).

Jellling's measurements are reconstructed; Svogerslev (II) and Hammarlunda are uncertain as Basilicas; they may rank with Kongemarken (and Sebbersund?) as churches with internal posts that are not Basilicas.

	Total length	Length nave	Width nave	Length choir	Width choir
BASILICAS					
JELLING St. Johannes? First wooden church (980s?)	39.2	20.0	13.5	9.6	9.6
LUND St. Maria Minor (c1050)	>18 (24?)	>10.0	c10.0	8.0	c7.6
LUND Trinitatis?/Kattesund (c1050+) (ex-"Drotten", ex-St. Stefan)	25.7	17.9	10.6/10.8	8.1	7.5
? HAMMARLUNDA (I) St. Anna? (c1050+)	?	≥9.7	≥c5	?	?
? SNOLDELEV(II) (c1070)	?	≥9½	≥4½	?	?
ODENSE St. Albani (post 1086?)	?	≥18	≥12	≥7?	≥7
SMALLER CHURCHES					
LUND Trinitatis/"Drotten" (c990)	?	?	c7.0	5.5	7.0
(King Svend's church?)					
SEBBERSUND (c1000?)	c13	c13	4-6	-	-
KONGEMARKEN (c1000) (uncertain)	≥8	≥8	≥2	-	-
LUND St. Stefan (1049/50)	18.5	18.5	6.8	-	-
LUND ?/south of Kattesund (1057+)	19	15	6½	4	4
HØRNING (c1060+)	9.3	6.0	4.5	3.3	3.3
SNOLDELEV (I) (before 1070)	≥5½	≥5½	?	-	-
LISBJERG (close of 11th century)	8?	8?	6	?	?
VORGOD (-12th century)	7	7	5	-	-

Table II. Summary model of the chain of events: Jelling & Denmark, etc. in the late 10th century.

	FACTS	FACTS & FICTION
934	German attack, King Gnupa subdued	Fortification of Hedeby, Ribe, Århus (↓)
	King Sigtryg, son of Gnupa; "Gorm"	
		King Gorm's rune-stone for Thyra (↓)
958/59+	Chamber in the old Northern Mound	Queen Thyra/King Gorm buried in the chamber, at Jelling
		Northern Mound extension, huge ship-setting, large palisade fence, etc.
•960s, early	King Harald accepts Christianity	King Harald's rune-stone for Gorm & Thyra
964/65(?)	Chamber in Northern Mound opened	Queen Thyra/King Gorm exhumed, buried elsewhere*
965/68	Danevirke defences strengthened	
970/71	Mammen grave	King Harald dies, buried in Slavonia (↓)
•970s	Southern Mound (cenotaph)	
973	Danes at Quedlinburg imperial meeting	
974	German attack on Danevirke	Kovirke wall (?)
•970s, late	Trelleborg fortresses	Cross type half bracteate coins (Jelling?) ↓
983	Danish attack on German fortress	
c986	Ravning Enge Bridge	Wooden cathedral at Jelling,
		King Harald re-buried under the church
c990	1st wooden church in Lund	
•990s	King Svend attacking England	
1014	England conquered, King Svend dies	

*Alternatively, King Gorm was buried in the chamber at this date; in which case, the construction of the Northern Mound extension and the huge ship-setting, as certainly the acceptance of Christianity (cf. the large rune-stone), are later.

Table III. 10th century kings of Denmark before King Harald according to Adam of Bremen (Adam). The issue has been pondered endlessly in the literature, often without the archaeological and other knowledge we have today (e.g., Østergaard 1994; Møller 1997). Adam is a late source, his information incomplete, contradictory and appearing in several versions; in addition, Adam had his own "agendas" as a writer.

I.48 - source King Svend Estridsøn (died 1074): After the defeat of the Norsemen [Battle of Louvain 891] Heiligo [Helge] reigned, according to my knowledge, loved by his people for his justice and holiness [cf. German Heilig], followed by Olaph who came from Sweden and occupied the Danish kingdom by force of arms. He had many sons, of whom Chnob and Gurd took over the kingdom after the death of the father.

I.52 - source Svend Estridsøn, etc.: After Olaph, the First of the Swedes, who ruled in Denmark together with his sons, Sigerich took his seat. But already shortly after, Hardegon, a son of King Suein's [Svend], who came from Nortmannia [Norway or Normandy?], stole the throne from him. It is uncertain whether all these Danish kings, or rather tyrants, ruled the same time or lived shortly after each other.

I.55 - source likely local library: At that time, Hardecnudth Vurm reigned among the Danes; he was a very dangerous worm. [A *lacuna* has been suggested between Hardecnudth and Vurm, implying that Vurm is the son of Hardecnudt.]

I.57 - source unnamed Danish bishop: King Heinric invaded the land of the Danes with his army, scaring King Vurm, who promised to obey Heinrich.

I.59 - source likely local library: King Worm & son Harold [listed as contemporary with Archbishop Unni of Hamburg-Bremen (918-36)].

Interpretation: Chnob (Cnuba) must have reigned in 934; his son is Sigerich (Sigtryg). King Heinric (Heinrich) suppresses Cnuba, not Vurm. According to Adam, Sigerich is followed by Hardegon, who is likely identical with Hardeknuth [and perhaps = Knud I]. There is also a link between Hardeknuth and Vurm; Adam actually regards "Vurm" as a nickname. King Gorm (son Harold/Harald) is identical with Vurm/Worm. It is possible that the character behind Hardegon, Hardecnudth and Vurm/Worm is one and the same: King Gorm, who must have died around 960.