**Introduction and theoretical approach**

This thesis compares the structure and organisation of Late Neolithic and Bronze Age settlements across the southern and middle part of Scandinavia. The variation in size and associations of long-houses and farmsteads is used to analyse economic, social and political complexity. The materials and energy invested in residential housing and in the complexity of the farmsteads illustrate the social stratification and centrality of different regional societies. Settlements range from single farms to hamlets and small villages, and form networks of community structures. The internal organisation of these different settlements is used to discuss the economic specialization and social stratification that forms the basis for polities in the form of chieftdoms of different size and complexity.

My thesis consists of three articles that have been published earlier and an introduction and synthesis of the results of my studies. The articles “Byggnadstradition”, “Gårds- och bebyggelsestruktur” and “Aspekter på bebyggelsens struktur och sociala hierarkier” first appeared in two recent publications, where the results from two large rescue projects have been presented:


The approach in all these articles rests on neo-marxist or structural marxist theory, and this is also the case in my discussion of settlements and society in the thesis. This dialectical approach has traditionally often been used when dealing with the Late Neolithic and Bronze Age societies in Scandinavia, and there is a well-established tradition to examine the archaeological materials as expressions of actions in a struggle for economic, social and political power inside and between groups of different size and complexity. According to this theoretical approach, material culture is actively used to express differences in cultural and social affiliation. A central idea is also that material culture can be used actively to transform society in a desired direction; aspiring chiefs and aristocratic families may manipulate materials or styles to legitimise their new social position, and lower social groups may use the same method, in the open or concealed, to oppose changes.

The dialectical approach of neo-marxist theory gives it an advantage when dealing with social change. The tools supplied include a number of useful concepts that
can be applied to analyse the structure and organisation of society, but also the process of transformation. Focus is of course on power and the efforts to obtain it, but other aspects of society can also be discussed. In a dialectical process, the possibility to analyse the different sides of social change gives it a more dynamic approach, where oppositional relationships, hidden underneath the social web, can be identified. Also, when analysing society with this method, the holistic perspective gives it an advantage compared with other theoretical approaches.

During recent years, the discussion concerning the perspectives to analyse the economic, social and political organisation of Late Neolithic and Bronze Age societies has been intense. Traditionally, at least Bronze Age societies in southern and middle Scandinavia have been treated from a macro perspective, where a holistic approach has been used to describe and discuss the general development. Long-distance contacts and aristocratic networks covering large parts of Europe have been considered important for transforming society and establishing small- and medium-sized chiefdoms in Scandinavia. This approach has been questioned by post-modernist, post-processual researchers and others, claiming that a micro perspective can better describe the situation; they concentrate on the local variation and development. The traditional emphasis on chiefdoms as the only possible form of political organisation is also criticized, and as an alternative more egalitarian or simply less complex political forms are presented and discussed. This criticism of the traditionally dominant chiefdom model is in many ways well-founded, and a more balanced discussion of alternatives could be productive. A heterarchical perspective can, according to some researchers, give a broader and more complex view of society.

However, recent large-scale studies provide evidence to support the establishment of stratified polities in the form of chiefdom-like institutions with some hereditary transfer of power already during the beginning of the Late Neolithic, 2300 BC. The conflict between the micro and macro perspective can, therefore, be considered non-existent and the debate a pseudo event, as they are just describing two sides of society that complement each other. Some regional variation in material culture, economic specialisation and social and political organisation shows the importance of local traditions and economy, but most recent studies support the view that the polities of southern and middle Scandinavia were part of an extensive network of long-distance contacts, supporting chiefs and aristocratic centers over the whole area.

A new model – variation in time and space

During the last 10-15 years, a great effort has been made to improve the knowledge about settlements in the southern and middle part of Scandinavia. We now have a good picture of the situation and development in the area. This is mostly due to extensive research projects and rescue work in connection with large infrastructure and development programs. An important part of these studies has been to identify possible variation in settlement structure and organisation, both in regions and between regions in the area.

The existing model has for a long time been based on the presumed existence of a “standard” long-house and farmstead in combination with a simple and one-dimensional model for how the farmsteads were positioned and organised in the landscape. The prevailing model states that single farmsteads were spread out more or less evenly in different regions of southern and middle Scandinavia, and that the only more complex structures that might have existed during the period would have been small clusters of two or three farmsteads. The level of cooperation between the individual farmsteads has traditionally been considered to be relatively low.

This model for how farmsteads and settlements were structured and organized must now be considered inadequate, especially when compared with models
Based on burials and offerings for how society was organised. Traditionally, at least the Early Bronze Age society was considered to be stratified and relatively complex, while the level of stratification during the Late Neolithic and Late Bronze Age has been under considerable debate. However, recent research based on a number of large-scale studies of different archaeological materials has shown that the transformation of society towards a more stratified organisation started already in the beginning of the Late Neolithic, and that the level of stratification increased gradually over time. Therefore, we must reevaluate the existing model for farmsteads and settlements, as it does not match the expected structure and organisation in a stratified and relatively complex society.

Based on a revision of old material and studies of settlements recently excavated, and a comparative study of several hundred long-houses where $^{14}$C-datings from the individual buildings have played a crucial role for establishing a typology and chronology for southern and middle Scandinavia, I have been able to show that there has been a clear variation in size of contemporary long-houses and farmsteads (Table 1). The variation in size of contemporary long-houses and farmsteads, a range that changes over time, must according to comparative historical and anthropological studies be interpreted as a clear sign of social stratification. The degree of variation seems to have been closely connected with the availability of important natural resources and the centrality in the long-distance networks of the different regions in southern and middle Scandinavia.

A greater variation in settlement structure and organisation is also apparent (Table 2). By analysing the $^{14}$C-dating, stratigraphy and alignment of long-houses in large, multi-phased settlements, it has been possible to show that a greater complexity existed in the structure and organisation of farmsteads. The range in variation, from isolated to clustered farmsteads, hamlets and small villages, seems to have the same connection to important natural resources and centrality as the range in size of long-houses and farmsteads. In richer and more central regions, variation in settlement structure was noticeable with everything from single farms to more or less complex hamlets and even small villages during the late Bronze Age, while the variation in more marginal areas has been more moderate. Single farms have been the basic unit here, but small clusters or hamlets with two or three farmsteads have also existed in the more central parts of these regions.

According to my new model, the change in centrality in the long-distance networks over time for certain regions in southern Scandinavia has meant that there

<table>
<thead>
<tr>
<th>Time period</th>
<th>Absolute date</th>
<th>Size of long-houses (length/width)</th>
<th>Estimated roofed area</th>
<th>Ratio of size of long-houses (smallest/largest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN I</td>
<td>2300-1950 BC</td>
<td>9-30 m 6-8 m</td>
<td>70-250 m²</td>
<td>1:3,57</td>
</tr>
<tr>
<td>LN II – BA IA</td>
<td>1950-1600 BC</td>
<td>9-47 m 7-9 m</td>
<td>70-350 m²</td>
<td>1:5</td>
</tr>
<tr>
<td>BA IB - III</td>
<td>1600-1100 BC</td>
<td>10-60 m 7-10 m</td>
<td>75-450 m²</td>
<td>1:6</td>
</tr>
<tr>
<td>BA IV - VI</td>
<td>1100-500 BC</td>
<td>10-35 m 6-9 m</td>
<td>70-280 m²</td>
<td>1:4</td>
</tr>
</tbody>
</table>

Table 1. General development of the size of long-houses in the southern and middle part of Scandinavia during LN I – BA period VI. It is important to notice that the variation in size of the buildings varies between regions in the area.
can be considerable variation in social stratification, settlement structure and organisation from one period to another, which can complicate the interpretation of the material, though this is in itself an interesting potential for further analysis. A central region during the Early Bronze Age like Thy in north-western Jutland, was in a couple of hundred years transformed from a rich and wealthy region to a marginal position with very little influence on the general development in southern Scandinavia. Also, changes in the local economies due to the establishment of too many farmsteads and the resulting ecological problems most likely impacted over time the organisation of settlements and society in many regions.

The general development of farmsteads and settlements in southern and middle Scandinavia

New evidence for the development of the building tradition and the settlement structure is in itself enough to talk about the presence of a subtle settlement hierarchy and a stratified society in some central regions of southern and middle Scandinavia already during the beginning of the Late Neolithic. In combination with a reevaluation of the archaeological material from graves and offerings in the area, a much better picture of daily life emerges. When all facts now have been reconsidered, this society must be described as stratified already from the first half of the Late Neolithic, 2300–1950 BC, with its social foundation in small- and medium-sized chiefdoms based on some heritable social ranking and a warrior ideology.

By the first half of the Late Neolithic, the variation in size of contemporary long-houses and farmsteads increased (Table 1). The range in size of long-houses can be estimated to 1:3.57. At the same time the settlement structure became more varied, at least in certain central areas of southern Scandinavia (Table 2). This complexity in settlement structure can be traced back at least into the Middle Neolithic B (2800–2300 BC), when we have a few examples from, for instance, the island of Bornholm in the southern part of the Baltic Sea. My interpretation is that both single farms and hamlets existed at least by the end of the Middle Neolithic. Good examples of small hamlets that date to the first half of the Late Neolithic includes Bejsebakken and Myrhøj from the Limfjord area in northern Jutland, Denmark, and Stångby stationssamhälle in Scania, southern Sweden.

During the second half of the Late Neolithic and Bronze Age period I, the range in size of long-houses increased to 1:5, and the number of large farmsteads multiplied (Table 1). Examples of larger and more
complex hamlets also suggest a settlement hierarchy in southern Scandinavia. Good examples of hamlets from the second half of the Late Neolithic and Bronze Age period I, include Limensgård on Bornholm, Denmark and Almhov in Scania, southern Sweden. Such aggregations of farms could be interpreted as “chiefly hamlets”, as one really large farm existed in both cases. At Limensgård, three phases can be identified. Inhabited from 2050 to 1700 BC, this hamlet consisted of one large farm and three medium-sized ones. The large farm remained in the same area of the settlement during the whole period, suggesting a continuity of power. At Almhov, at least five or six contemporary farms existed during the second half of the Late Neolithic and Bronze Age period I. One farm had a sequence of larger long-houses during the whole time of the settlement. The farms at Almhov were placed in an oval circle with an open area in the middle, suggesting a division of space for communal and individual activities around the hamlet.

During Bronze Age period IB-III, which had the maximum range in size of long-houses with a ratio of 1:6, long-house construction shifts from two-aisle to three-aisle. The size of roofed area increased considerably, and the number of large and more complex farmsteads increased in central regions. A few examples show the same complexity in settlement structure and organisation as during the earlier periods. At Højgård in southern Jutland, Denmark, for example, a small hamlet of three or four contemporary farms has been excavated. One of the farmsteads is considerably larger during some phases of the settlement.

Wealth deposited in graves and offerings increased during the same time period and included a range of high status metal objects, but especially weapons and personal adornments. There was also a considerable increase in the local production of metal objects, mostly weapons like axes, spearheads and swords. Probably all these changes can be attributed to well established long-distance networks covering southern and middle Scandinavia and northwestern and central Europe, involving expanding trade in metal and other high status commodities. This change appears to stabilize and more clearly materialize the small and medium-sized chiefdoms supported by warriors. The idealized identity of chiefs and warriors can be seen in the equipment of the dead placed under huge barrows and cairns, in the offerings and also in the rock-carvings in certain parts of southern and middle Scandinavia. In spite of the strong connection to an ideology idealizing chiefly power and male warrior identity, there is no evidence of fortifications during this period, but some of the largest farmsteads were placed high in the landscape, which in itself documents the presence of defensive settlements. This suggests that the nature of warfare in the area did not require strong defensive positions, and that small scale raiding to acquire cattle, slaves and fame have constituted most aggressive actions.

From Bronze Age period III, the range in size of long-houses gradually decreased to a ratio of 1:4. This moderation in difference also characterizes the Late Bronze Age, from period IV forwards. A general decrease in long-house size could imply that the political and social organization had become less complex, but, according to my interpretation, this change can best be attributed to a more restricted use of the long-house as a marker of status and social position. Other materials in graves and offerings indicate that a marked social hierarchy existed during this period in some central regions.

Evident examples of hamlets and even small villages get more and more common during the Middle and Late Bronze Age. From this time, densely populated settlements have been excavated at Spjald and Bjerg in western Jutland, Denmark and at Apalle and Pryssgården in eastern middle Sweden. During the Late Bronze Age, the character of the settlements in some areas became more defensive. For instance, in eastern middle Sweden fortified settlements and hill forts were built, and some show evidence of having been attacked and burnt. In the same area, examples of densely populated settlements with up to 10-15 contemporary farmsteads must be
characterised as small villages. This agglomeration of people could be a response to a heightened aggression or a change in the nature of warfare.

As I have shown with this new model, the development of evident differences in long-house size and in settlement structure that started in the beginning of the Late Neolithic represents a gradual reorganization of society. During the LN I (2300-1950 BC), social differentiation was established with small, decentralized chiefdoms. These chiefdoms are gradually transformed into larger and more developed polities during the following time period, LN II-BA IA (1950-1600 BC), documented in part by the establishment of more complex chiefly farmsteads and hamlets. True chiefdoms with well-established hereditary transfer of power, but still with a decentralized structure based on chiefly networks, can be identified in several archaeological materials from BA IB – BA III (1600-1100 BC). Large farmsteads and chiefly hamlets document relatively complex chiefdoms. During BA IV-VI (1100-500 BC) the general decrease in size of long-houses could be interpreted as a sign of a less stratified society, but the development of a more complex settlement structure and the continued investment in metal and large burial monuments in some central regions instead suggests a concentration of wealth and a centralization of power to these parts of southern and middle Scandinavia.

Chiefly farmsteads and hamlets – the economic, social and ideological context

According to my hypothesis, the large long-houses must be interpreted as the main buildings on chiefly farmsteads. Sometimes we can see that small buildings were placed close by these large long-houses and they can be interpreted as outhouses for storage or specialized activities. The chiefly farmsteads seem to have been important centers for the production and distribution of high-status objects, constituting hubs in the long-distance networks. The relations between the large farmsteads and the co-existing medium- and small-sized ones in clusters and hamlets must have been close, both economically and socially. In central regions of southern and middle Scandinavia, the relations between the different-sized farmsteads have been well developed, and they have been engaged in specialized economic activities with the large farmsteads as central operators.

Quite a few of these large long-houses seem to have been used for a long period of time, maybe up to 100–150 years. Quite a few have been repaired and/or lengthened, which must be a clear sign of a long time of use. There are also examples where the extensive use of 

\[ ^{14}C \text{-datings} \] has made it possible to identify different phases in the construction and a lengthy use. They were probably an important investment in the local economy, both in labour and material, which suggests that it was necessary to use the same building for a long time. Interestingly enough, there are also quite a few chiefly farms where several consecutive large long-houses have been erected very close by each other. This continuity of use of the chiefly farmsteads for hundreds of years has probably made it possible to integrate the large longhouse and the large farmstead as a symbol of continuity in the landscape and as an impressive sign of power in a stratified society. This means that the large long-house has become an important symbol for the continuity of chiefly power of a family or perhaps lineage.

The importance of the long-house in society increased during the transition between the Middle Neolithic B and the Late Neolithic. The general change in architecture and the gradually increased range in sizes show that the long-house in itself received a number of new symbolic and ideological meanings, closely connected to the establishment of a more stratified society. The investment in large long-houses during the Late Neolithic and Early Bronze Age implies that these buildings received several new economic and social functions and became an important symbol for the gradual establishment and strengthening of chiefly power. The large long-house became a symbol for this
new social and political order, and most likely it was transformed into a differentiating corporate body for the developing aristocracy. This might imply the introduction of a “house-based society”, where the large long-house has worked as a transforming institution for society. In societies in transformation towards a greater concentration of power and social stratification, the long-house as symbol and institution offered opportunities for ideological, social and political manipulation. The establishment of a “house-based society” made it easier for aspiring chiefs and aristocratic families to break away from the old, more egalitarian and kin-based society, and by establishing new long-distance networks with other aristocratic “houses”, alternative social structures and ideological systems could be constructed.

The increased importance of the long-house as a symbolic and ideological operator can also be seen in burials, where real long-houses or symbolic copies and even miniature models of long-houses were integrated into barrows or cairns from the Late Neolithic and onwards. During the same time period house-like graves and stone settings were introduced, suggesting an even more important conceptual position for the long-house. The meaning of this quite extensive use of real or symbolic buildings in burials probably have a strong relation to the context of the long-house as a powerful economic, social and political institution. In a society in transformation towards a more stratified social structure, the chiefs and aristocratic families could use the long-house as a symbol of continuity when the head of a chieftdom was buried inside his own demolished long-house under a barrow or cairn, or, alternatively in a symbolic house-like grave or stone setting. These types of graves must have been important monuments to justify the hereditary transmission of power, and in some cases might even been the starting point for descendents of new chiefly lineages. In combination with the growing importance of different kinds of cult-houses and death-houses placed in grave fields in certain regions of southern and middle Scandinavia, it is not hard to argue that buildings, and long-houses in particular, had a powerful symbolic and ideological meaning. There is a long tradition in Scandinavia for the use of different kinds of buildings in ritual and religious functions, from the Late Mesolithic and onwards, which implies a continuity for certain symbolic and ideological meanings that might be compared with the Jungian concept of “archetype”. An artefact that really emphasize this conceptual continuity is the house-urn, which is used as a container for the burnt bones in a small number of burials during the Late Bronze Age, from period IV-V. Formed as small buildings, the symbolic meaning of the house-urns is not hard to grasp for anyone familiar with the importance of the house as an ideological concept in Late Neolithic and Bronze Age Scandinavia.

The general development in southern and middle Scandinavia

The development of long-houses, farmsteads and settlement organisation is closely connected to the general economic, social and political changes in the area. During the end of the Middle Neolithic B, 2600–2300 BC and the first half of the Late Neolithic, 2300–1950 BC, the organisation of society in southern and middle Scandinavia gradually changed. To some extent, this change can probably be explained by contacts between the Bell Beaker Culture networks in northwestern Europe and some central regions in southern Scandinavia. For instance, in northern Jutland there are clear signs of extensive long-distance contacts with this area in several of the settlements and burials in the region. In other central regions of southern Scandinavia, like Sealand, Scania and Bornholm in the Baltic Sea, contacts with other metal using groups to the south were probably more important. Good waterways, like the rivers Elbe, Oder and Weichsel, were probably used to uphold long-distance contacts with important centers for the production of metal objects in Middle and Central Europe.
The increased interaction with various groups in continental Europe and the gradually intensified import of metal objects, mostly axes and small personal adornments, gave rise to a much more complex social and political organisation in southern Scandinavia during the first half of the Late Neolithic. Signs of this can be seen in the settlements in certain central areas of present day Denmark and Sweden; the range in size of long-houses and the variation in settlement organisation clearly increased. Settlements in the Limfjord region in northern Jutland, Sealand, the island of Bornholm in the southern part of the Baltic Sea and in some parts of Scania in southern Sweden start to show clear signs of social stratification and a much more complex inner structure.

In combination with a reevaluation of the material from the graves and offerings, the signs of an early change in the organisation of society seems to be well grounded. There is a clear increase in the variation in size and complexity of the graves in the area, and this is also true when it comes to the character of the grave goods; very rich graves and poor ones can be found close to each other in the same grave field. This clearly indicates that the increased social stratification in society was mirrored in the burial customs, though the number of metal object in the graves are still very few during this time period.

This development is also evident in the offerings, where a clear division in value and complexity can be seen in the individual deposits mostly made in lakes, wetlands or close by large boulders on dry land. The range of offerings is quite large; flint and stone objects like axes and daggers still make up the majority of the deposits, but in some cases more exclusive offerings include different metal objects, mostly axes made of copper alloys. Interestingly, the more traditional offerings in the form of flint and stone objects have never been deposited together with metal objects. This indicates that there has been a clear difference in status in the individual offerings, and that the use of metal objects has been limited to a few aristocratic groups in society, trying to establish and strengthen the new social order.

However, the increase in social complexity was not entirely dependent on the introduction of metal objects in the area, as there are clear signs of an increase in social stratification already during the beginning of the Late Neolithic, 2300 BC, long before metal started to have any real impact on society. According to several researchers, the monopolization of the manufacture and distribution of well made, high status flint daggers and different kinds of stone axes could have been used to concentrate social and political power to a limited number of chiefs in central areas of Scandinavia.

The change of society starting in the first half of the Late Neolithic in certain central regions is gradually converted into a more general transformation in a larger area during the second half of the time period, 1500–1700 BC. A relatively homogeneous material culture with clear signs of social stratification is established in southern and middle Scandinavia during this time. The gradual increase in import of metal objects and also the introduction of a local production of metal objects during the second half of the Late Neolithic and Bronze Age period IA, 1500–1600 BC, gave rise to an increased concentration of power and the establishment of more stable polities in the form of chiefdoms supported by warriors. This is also the time when the connection with the Únětice-culture in the Middle and Central Europe grew stronger, and the networks between southern Scandinavia and continental Europe were further strengthened. The exchange of prestige goods in the form of metal, metal objects and amber increased over time and long-distance travels probably became a very important part of the activities of the local chiefs and their warrior elites during the Bronze Age period IB–II, 1600–1300 BC.

The concentration of the influx of metal raw material and metal objects into the hands of the chiefs, and the monopolization of the know-how to make metal objects, gave rise to an exclusive group of powerful, aristocratic centers in southern and middle Scandinavia, from where the distribution of prestigious weapons,
ritual objects and personal adornments was governed. During the Bronze Age period IB–III, 1600–1100 BC, the direction and the center of gravity in these exchange networks changed several times, but the long-distance contacts remained important. The chiefs and their warrior elites manifested their increased power by building large farmsteads, barrows and cairns, where idealized personifications of the heroic chiefs and warriors were laid down to rest, and also in offerings of exclusive metal weapons and ritual objects in wetlands. The construction of tens of thousands of barrows and cairns created a landscape where the signs of power were visible everywhere. The inspiration for this massive investment came, with all probability, from the Tumulus culture in continental Europe.

The development in southern and middle Scandinavia during the Late Bronze Age, 1100–500 BC, is, according to many archaeologists, characterized by a fundamental change in the social structure and complexity towards a more egalitarian society. The number of barrows and cairns built during this time decreases and the size of the monuments is mostly modest, though there are some large monuments still being built, so the picture is not one-sided. At the same time the burial custom changes and cremations placed in urns become the most common type of burial. Often they have been placed in urnfields or as secondary graves in older barrows and cairns.

This has often been interpreted as a sign of a more egalitarian society, and in combination with the parallel decrease in the variation in size of long-houses, this could actually have been the case. However, there are strong indications contradicting this interpretation, so this theory can not be upheld. Large barrows, cairns and other aristocratic monuments such as ritual houses or house graves with rich burials were still being constructed and there are also signs of important central regions with concentrated metals and high status imports, sometimes found in offerings in wetlands. Even if the general size of the grave monuments decreased and the variation in size of the long-houses became less evident during the Late Bronze Age, monumental graves and farmsteads were constructed, and they could be interpreted as expressions of a continued hierarchical social organisation.

According to my interpretation, it is more likely that this development can be attributed to a changed view of the long-house as a marker of social status and position, as the materials from burials and offerings clearly shows that there still existed a marked social hierarchy and stratification, at least in certain central regions of southern and middle Scandinavia. This could mean that other areas of the material culture took over the role as more important symbols of power and prestige.

Long-distance contacts over large parts of Northern and Central Europe gradually formed networks of political alliances and exchange of prestige goods, supporting the chiefdoms based on wealth finance and a warrior ideology. Thus, the chiefdoms in the southern and middle part of Scandinavia were not passive bystanders in a distant periphery of Northern Europe, the “Ultima Thule”. Instead we can see clear signs of how the networks of long-distance contacts involved the higher social stratum over large areas of Europe in extensive exchange systems of material culture, technologies, ideologies and ideas. Although the ways of contact and the main axis of these exchange systems changed over time, their existence can be seen as an important fact in the formation of European Bronze Age societies.