

## Trees for marking boundaries of landed property in premodern Estonia

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**Abstract.** The German and Danish conquest of the Estonian region in the 13th century, which resulted in new power and property relationships, restructured the cultural landscape and gradually replaced the former zone or regional boundaries by linear boundaries. Until ca 1650 property boundaries were usually described by trees marked with a cross. At the end of the 17th century, Swedish authorities began to regulate the demarcation of landed property boundaries with stones, which do not change their form as trees do. In folklore collections, little information is found about boundary trees; rather, tales about the trees with a sign of a cross cut into them were usually related to the magic of death, to remember the deceased by a tree with a cross scraped into it on the border of their former farmstead or village.

**Key words:** settlement history, cartography, boundaries, trees, folklore.

### INTRODUCTION

People are attached to their environment by the land they own and inhabit. In order to claim land and distinguish it from the neighbours' grounds, many cultures use property markers, whether they are living objects such as hedges or trees or man-made ones like fences. Over time the types of markers may change for ecological, economic, folkloristic, or political reasons. Thus, the system of property rights and how that is translated into practice on the ground is a critical part of the environmental history of a country.

In Estonia, the history of property rights has gone through significant changes when different conquerors swept over the area. The 13th century conquest of the area we now call Estonia by Germans and Danes brought about a major qualitative change in the development of local boundaries in the Estonian territory. New power and property relationships provided a basis for the restructuring of cultural landscape. As a result, the former zone or regional boundaries were gradually replaced with linear boundaries, which from the 14th to 15th centuries were fixed by feudal enfeoffment letters and purchase-and-sale agreements. Later the cadastre, established by the Swedish crown for the provinces of Livonia and Estonia, produced large-scale maps of estates that provide an overview of the situation and borders of the manors at the end of the 17th century. In accordance

with these oldest large-scale maps, it was a standard practice to make use of trees as boundary marks.

Here I will sketch how trees and stones were used in Estonia from the 14th to 17th centuries to mark landed property and how the practices changed with the growing precision of linear boundaries. A large part of the article discusses the way Swedish authorities influenced the official regulations and rules concerning the demarcation of the landed property boundaries. In addition, I examine whether there is a connection between boundary trees and the tradition of commemoration by using cross-trees, that is whether the idea of a physical boundary between two areas corresponds to the belief in a boundary between life and death. The main objective is to show how the usage of the markers changed over the centuries, and how linear boundaries became more significant and precise due to technical improvements in land surveys.

### **DEMARCATON OF BOUNDARIES**

Extensive designation of boundaries began in West Europe in the 12th and 13th centuries and in East Europe in the 13th and 14th centuries, while fixed boundaries with artificial designators appeared in the East-German colonization areas in the 13th century (Schneider, 1993). An essential breakthrough for the origination and formation of local boundary lines in the Estonian area was the conquest of the country by Germans and Danes in the 13th century. The conquerors are thought to have introduced a novel spatial thinking that differed considerably from that of the local people, who relied on natural elements and whose mentality restricted movement across natural boundaries (Laakmann, 1939; Hellmann, 1954), although some linear boundaries had been used around farmsteads before the conquest (Selart, 1998). Even through the late Middle Ages, the prevailing boundary type was a zone, regional, or district boundary, but gradually it began to be replaced with a linear boundary. The regional belt boundary was common in the forest with no obvious boundary marks and therefore the trespassing of the boundary was easy and caused numerous conflicts – those became very common from the end of the 15th century (Vilberg, 1932).

Boundary development from broad intermediary zones to linear boundaries from the conquest to the 17th century depended on a number of factors: demographic growth, expansion of land use, scarcity of free lands, needs of land consolidation, desire to improve area management, reinforcement of rights to land ownership (Selart, 1998). It became increasingly important to describe a boundary line by means of individual points, so cross-scraped boundary stones and trees, heaps of stones, roads, streams, etc. were used as boundary marks (Vilberg, 1932).

Because literacy was not widespread at the time, the fixing of boundaries was a public ritual that included riding or walking along the length of the boundary. The primary purpose of the demarcation of the boundary line was to avoid boundary disputes over landed property as well as to establish spheres of economic

influence. The boundary had to be genuine, not open to legal dispute, and secure (Simiński, 2007).

As a consequence of the transition of northern Estonia under the supremacy of Sweden and southern Estonia partly under the supremacy of Poland in the second half of the 16th century, a need for a rearrangement of relationships governing landed property and boundary issues emerged again. Counties and parishes were separated by large forest and swamp areas without any distinct boundary marks. After the whole area known as Estonia had been subjected to Sweden, landed property relationships gradually stabilized and, as a consequence of the formation of a network of landed estates all over Estonia, a greater precision in determining the boundaries of the estates developed.

### **TREES AS MARKS OF BOUNDARIES OF LANDED PROPERTY**

Records dating back to the 14th through 16th centuries included precise boundary descriptions. For mapping the course of a boundary, a whole list of orientation points related to landscape topography had to be observed (Moldenhauer, 1981). While various artificial landmarks were used in mapping, most essential sites in the local people's collective memory were also taken into consideration. During boundary disputes, litigants relied on the landmarks that indicated the course of the boundary.

To mark the course of a boundary, landscape descriptions included characteristic features and landmarks such as woods, rivers, streams, swamps, and lakes as well as place names. In addition, descriptions often mentioned elements of cultural landscapes such as roads, mills, and dams (Karp, 1972). In the 14th and 15th centuries, descriptions of Estonian property boundaries recorded in feudal contracts and purchase-and-sale settlements included numerous trees alongside other boundary marks. There appears to have been no restriction on the tree species suitable as a boundary marker – oaks, birches, spruces, pines, aspens, and alders all served as marks on surviving maps (LGU, 1908, 1923). Besides standing trees, tree stumps and fallen trees were also used as boundary marks. Over the course of time, boundary marks became more and more varied. A stone with a cross scraped into it became the most common form of designating a boundary; at the same time there were also boundary shoulders, ditches, and pits that were filled with stones or charcoal, and mounds or heaps of stones.

Commonly, crosses were scraped into single boundary trees and tree stumps; however, a boundary tree could be without any mark at all (LGU, 1908, 1923). Historical documents report trees with crosses cut into them but also with stripes and notches scraped into them (Vilberg, 1932). As an insignia of the Bishop's ownership, a crosier and lily were sometimes scraped into a tree. A horn and three snicks could also be cut into a tree for a boundary mark. In addition to crosses and other marks scraped or cut into trees and stones, a group of man-made orientation points – single crosses – were erected to stand quite on their own. However, these types of boundary markers were not secure and disputes

were frequent. Although punishments were inflicted for disturbing boundary marks, trees were cut down, boundary stones were tampered with or taken to another site, crosses were burnt down, and boundary shoulders were ploughed up (Vilberg, 1932).

### DISAPPEARANCE OF TREES AS BOUNDARY MARKS

In comparison to earlier centuries, the 17th century offered much novel information about marking boundaries of landed property. Namely, a lot of mapped material was added to earlier documentation. Swedish authorities established a special land survey board, thus beginning to give a sharper focus on land surveys and mapping. Invention of the plane table and its use with an astrolabe marked a breakthrough and contributed to the technical implementation of land survey. As plans were made for mapping the whole state the training of land surveyors became essential. In the Baltic Sea provinces, land survey and drawing large-scale maps was started in the 1640s; the first maps were related to the establishment of boundaries of landed estates.

Use of trees for marking boundary lines was still common in the 17th century. The first maps that designated boundaries of landed property from 1640–1660 show growing trees, tree stumps, and fallen trees as boundary marks. For example, a tree with a cross is found as a boundary mark of the estates of Haimre and Kasti in Läänemaa (West Estonia), mapped by Matia[s] Andresson (EAA 1.2.C-IV-306); on the boundary map of the landed estates of Kukruse and Toila, drawn by the land surveyor Sigismund von Staden in 1656, there are tree stumps, birches, and aspens and fallen trees with crosses scraped into them as boundary marks (EAA 2062.1.41); and in 1664, the same land surveyor made a boundary map of Harju-Madise and Harju-Risti, which showed a growing line of trees along the road, marking the boundary of the parishes (EAA 2072.9.37a).

A major development took place in boundary demarcation in the 1680s: in connection with the reduction of manors to the Swedish crown in the provinces of Livonia and Estonia, a systematic land survey and mapping began there in the 1680s (Ligi, 1963). Livonia was subjected to an unprecedented land survey with a large number of surveyors, the majority of whom were students of Uppsala University. The surveyors who arrived from Sweden were technically better trained than the former surveyors who had been working in the local provinces. This would result in much more extensive mapping and later, a shift in the role of trees as boundary marks.

Use of trees as boundary marks remained quite common throughout the surveying and mapping work done in connection with the reduction of manors. Large-scale maps of the Estonian area preserved from the 1680s and 1690s, which among other things described boundary lines between parishes and landed estates, depict a great number of trees to mark boundaries. Large trees were essential landmarks that facilitated land surveyors' tasks and made it possible to designate points at the boundary line with no great trouble. Thus, on the boundary

map of Ruusmäe and Viitina from 1694 (EAA 308.2.179), besides boundary stones with crosses, it is still possible to see pines and a spruce designated with crosses (Fig. 1).

The trees that represented boundary marks in the 17th-century maps included spruces, birches, pines, aspens, and oaks. The species of a tree was not always noted – sometimes mention was only made about a large tree, green tree, or a tree with a cross. Sometimes however the trees were given more detailed descriptions: a large spruce (EAA 308.2.122), two old spruces (EAA 1.2.C-IV-170), a crooked-stemmed birch (EAA 1.2.C-IV-308). In some cases the boundary was marked by a cluster of trees: two old spruces, four birches, or just young birches, or a line of trees (EAA 2072.9.37a). Trees could be marked with either one or several crosses but they could also be without any mark. In one case it was a bog pine while a former cross had been cut out of it (EAA 1.2.C-IV-247). Maps rarely indicated the time of cutting the cross into a tree, but one map drawn in 1696 of the estate boundaries of Lehtse and Raasiku in Harju-Jaani Parish displays a boundary pine with the scratches marking the time in its bark a few years before the map was drawn (EAA 1.2.C-IV-288).

Stumps and fallen trees were also found on maps from the 1680s and later. Surveyors often updated old, earlier drawn maps that included these features, so they were retained. For example, the 1680 map of Märjamaa (EAA 1.2.C-IV-308), which is based on an earlier map, had boundary stones marked with crosses, birch trees with crosses and a crooked stemmed birch with no cross, and a tree stump and a fallen tree with a cross cut into them (Fig. 2). Stumps can also be seen on later boundary maps, particularly in the case of disputable boundaries where it



**Fig. 1.** A fragment of the boundary map of Ruusmäe and Viitina of Rõuge Parish, Livonia, from 1694. There is a spruce and pines with crosses carved into them among boundary marks (EAA 308.2.179).



**Fig. 2.** A fragment of the 'Peduwa Hoffs' lands of Märjamaa Parish, Estonia, from the 1680s. Two trees with crosses carved into them serve as boundary marks (14, 15) (EAA 1.2.C-IV-308).

was important to show the course of an earlier boundary. Boundary marks may have been made on stumps of spruce, pine, aspen, birch, alder, as well as oak; in some cases the stump was more thoroughly described: a stump of a large oak, that of an old oak, or just a large stump (EAA 308.6.118). As a rule, stumps were marked by a cross.

At the end of the 17th century, Swedish authorities began to regulate the designation of the boundaries of landed property. Alongside growing significance and precision of linear boundaries, the use of trees as boundary marks was no longer permitted. The instruction of 21 August 1691 regulated that in rearranging boundaries in Livonia, possible boundary marks were numbered boundary stones and charcoal pits – no mention was made of trees (Sammlung der Gesetze, 1821). Special attention was drawn to boundaries in the instruction sent to the inspector of the Estonian land survey work Johan Holmberg on 14 February 1698. According

to the document, it was essential that all the boundaries were established because the boundaries in Estonia were regarded as too indefinite and poorly marked since at that time they were ordinarily marked either by boundary stones, pits, shoulders, or growing trees. In accordance with the instruction, the marking of a boundary by growing trees had to be avoided as their form changed in the course of time. It was underlined that following Swedish custom, the existing landmarks had to be replaced with large stones with a cross cut into them (Tarkiainen, 2009). If no stone of the required size was available, a heap of stones could be used instead.

Land surveyors took the instructions into consideration but because the reduction-based land surveying was very extensive, it was not possible for a relatively small-numbered group of surveyors to do everything by the book. As the Land Survey Head Office in Stockholm saw it, the work of mapping Estonia, in particular, proceeded too slowly and therefore the surveyors were forced to speed up their activity. Many maps were given the finishing touches in a hurry, thus part of them remained rough and sketchy and could not be cleanly redrawn so that, as before in land surveying, trees were still used to represent boundary marks on the maps since it was less time-consuming. Thus trees as boundary marks were generally still in use until 1710 when land surveying by the Swedish State was interrupted by the transition of the Estonian area under Russian supremacy.

Although in the 18th century trees were no longer used as boundary marks, maps from that time displayed them in great numbers. Since in the 18th century no extensive land surveying was carried out in the Estonian area (except in Saaremaa), map makers relied on the maps of the 1680s–1690s, drawn in connection with the reduction of landed estates, thus using them as sub-maps and adding changes to them if necessary. Such maps, which were drawn mainly in the first half of the 18th century, still displayed trees as boundary marks (EAA 1389.1.147; 308.6.210). However, land surveyors did not use trees as boundary marks on original maps of the first half of the 18th century (EAA 46.2.217; 46.2.105).

In the second half of the 18th century and by the 19th century, trees had lost their significance as boundary marks of landed property. Landed estate boundaries were appropriately signified with boundary stones and heaps of stones (EAA 1324.1.490). Demarcation of farmstead boundaries began only in connection with buying land for perpetuity in the second half of the 19th century, and by that time trees as boundary marks were history already. Although large trees were not used as boundary marks any longer, they still were of good assistance for land surveyors. Land surveying handbooks taught farmers to use tall trees as a helping device for calculating measurements such as the length of a lake or other natural features (Fig. 3):

We wish to find out the length AB of a small lake without being able to measure it directly from one end to the other. There is a pine tree on one shore of the lake and we can walk up to that pine; there is a birch tree on the other side of the lake but we cannot go there as the shore would not carry a person. Thanks to geometry we can calculate the distance AB or the length of the lake. The same applies to the measuring of the width of a river. (Tülk, 1879)

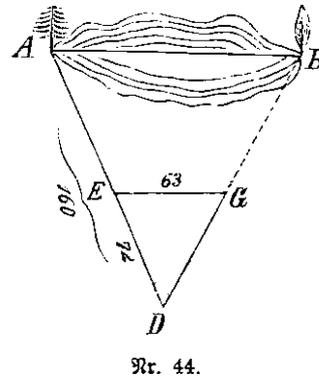


Fig. 3. A fragment of the guide to land survey for an Estonian agriculturist (Tülk, 1879).

### BOUNDARY TREES IN FOLK TRADITION

There is very little information about boundary trees in folk tradition. However, trees as landmarks have enjoyed a special place in Estonian folk tradition (Hiimäe, 2007). There are numerous tales about single ancient trees, those that are large or with an extraordinary form. A story about an old seamen's guiding mark goes back to the Kõnnu community in Kuusalu Parish:

There was an ancient, several hundred years old birch tree at Aadu's place in Viinistu. In the old days it was the largest tree in the neighbourhood, which could be seen far at the open sea. The birch had been a seamen's guiding mark at the times when there were no lighthouses yet, so the birch had been the only guide then. (ERA II 222, 39 (51) Kuusalu, Viinistu 1939)

Any eye-catching tree in the landscape obtained a place in spiritual culture, it was spared by the community and given protection, and it could persist for hundreds of years. Folk tradition includes tales about trees that were a thousand years old, despite the fact that physically a tree could not be that old. Reference to the old age of a tree underlines its prestige (Hiimäe, 2007).

One tale could have been related to a boundary tree from Türi Parish, 'a pine tree at Väitse (Väätsa) Village on which crosses were cut with swords during the Swedish War' (EÜS VIII 637 (179) < Türi). Another story is about the point of contact of the boundaries of three landed estates:

Close to the Rannu schoolhouse at Pärnamäe, three ancient lime trees designate the place where in the old days the landlords of Rannu, Konguta, and Valguta had met to mark the boundaries of their estates, at that, the landlords of Rannu and Konguta had shaken hands in agreement but the owner of Valguta had not confirmed the agreement by a handshake. That is how the wonder of nature had done by the three planted lime trees – the branches of two limes that had been planted by the owners of Rannu and Konguta had miraculously grown together at man's breast height but the third lime remained standing separately from the two. (RKM I/, 451 (1) < Kolga-Jaani, A. K. Melso 1964)

Folk tradition is scanty as far as other possible boundary marks of landed estates are concerned. We know that the forest in the Erra community had obtained its name by the boundary stone of four landed estates – Püssi, Pada, Erra, Kalsi – and became known as Neljaristi mets [Forest of Four Crosses] (ERA II 217, 235/236 (89) < Rakvere, Lõganuse, Püssi v. Ev. Tarve 1939). Although in folklore there are many tales about large stones with writings on them the narrator did not always say that they were boundary stones. Sometimes treasures were searched for under such stones with writings. These stones could not be associated with sacrificial stones because of their ornaments that included also crosses and foreign-language writings, which were generally incomprehensible. For example, in Kivijärve village, Võrumaa, on the shore of a lake in a swamp there had been a large stone with the numbers of years and other marks on it (ERA II 244, 654 (6) < Põlva, Peri v. Partsi algk. 1939).

The reason for the scantiness of tales related to the boundary was probably the fact that the estate boundaries did not have a large role in the peasants' everyday life, and that the transmission of the information about them from one generation to another was not so important. A boundary must have contained different meanings for different social classes in their everyday life and therefore there were also social differences in comprehending a boundary. A boundary was essential for a socially higher class as it was directly related to their political and economic interests. Apparently, in the peasants' everyday life, property boundaries played a relatively insignificant role, and boundaries did not typically interfere with their activity (Selart, 1998).

Traditions of place primarily reflected the way of life (Paulson, 1997). The everyday life of peasants, who were engaged in land cultivation, proceeded in three circles: the first one included all the buildings and the farmyard, the second covered fields in private ownership, and the third involved hayfields and pastures, which were common property of the villagers. The most important activity in the peasants' everyday life was concerned with the inner sphere while the outer sphere had the least importance. The domestic room, in its bounds and form, was well tidied (Hiemäe, 2001). The bounds of an estate remained outside, often proceeding through forests. The forest belonged to the outer circle of the peasants' living environment, which was not so familiar and sometimes could even be threatening (Moor, 1998).

It should also be noted that Estonian folk tradition began to be recorded only in the second half of the 19th century and because by that time boundary trees had been almost out of use for more than 150 years, they need not be reflected in later folk tradition. Knowing the milieu as background can keep up a narrative in folk tradition; however, only what is understandable and known can be preserved – the rest of it disappears (Jaago, 1995). As far as boundary trees are concerned, the appropriate milieu disappeared early and obviously no spiritual ground was left to keep up the tradition related to them.

There are numerous narratives in Estonian folk tradition about trees designated with crosses but these were not boundary trees at all. The tradition of cutting

crosses into trees was related to the cult of trees, which was a very ancient and widespread phenomenon, particularly characteristic of other Finno-Ugric peoples as well as of Germanic and Baltic peoples (Viires, 1975). In particular, there was an Estonian custom to cut a cross into a tree on the way to the burial place (Hiemäe, 2007). Cross-trees are known to have been a means of prevention magic when a cross in memory of the deceased was cut into a tree growing on the boundary line of their former homestead or village. The folk tradition related to the cross-trees is strongly preserved in a number of places in South Estonia (Torp-Kõivupuu, 2003). Folklorists report that the earliest data about cross-trees or their analogues came from the 17th century, but systematic descriptions about the Estonian tradition of cross-trees are relatively recent, coming only from the second half of the 19th century (Torp-Kõivupuu, 2008).

Boundary trees that marked the boundaries of landed property on the one hand and cross-trees related to prevention magic on the other are obviously two parallel traditions, associated by the same symbol. On the 17th-century maps, in addition to boundary trees, cross-trees also appear. The 1680 map of the Vaimõisa estate in Märjamaa Parish has a cross-tree into which a cross that was not a boundary mark had been cut (EAA 1.2.C-IV-247). In Nõo Parish, the boundary between Meeri and Tähtvere passed through a grove of birches that were marked with crosses cut into them. They could also have been cross-trees of prevention magic as the boundary was completely rectilinear and there was no need for marking the course of the boundary with so many trees (EAA 308.6.118).

What boundary trees and cross-trees to commemorate the deceased have in common is that in both cases the tree with a cross denoted crossing a kind of boundary: in the first case, the boundary between earthly possessions, in the second, the boundary between life and death. However, a question arises how ancient the tradition of cross-trees related to prevention magic is and whether it is possible that in the course of its emergence example was taken from boundary trees with crosses. The 17th century was crucial for boundary trees as it was then that trees began to be deprived of the role of boundary symbols they had performed in Estonia for several hundred years. Is it possible that when trees with crosses cut into them did not suit to mark boundaries any longer the tradition was transferred to quite another field? Cross-trees differ from the traditions related to Estonians' ancient sacred groves and other sacred places (Eisen, 1996; Loorits, 2004) in the sense that those trees were allowed to be scraped for crosses (Torp-Kõivupuu, 2003). In the framework of this article it is not possible to give answers to all questions mentioned, but we can see that they were two parallel phenomena.

## CONCLUSION

The 13th-century conquest of the Estonian area caused a significant qualitative change in the development of local boundaries. New power and property relation-

ships were based upon the restructuring of cultural landscape and as a consequence of introducing linear boundaries, earlier zone and regional boundaries began to disappear gradually. Boundaries became to be designated by natural objects: stones, ditches, and trees. Use of trees as boundary marks was natural, as ‘from time immemorial’ trees had obtained the status of topographical conventional signs or landmarks both in landscape and in the memory of people. The 14th- and 15th-century records already described boundary trees marked with crosses as demarcation of property boundaries. Beginning with the second half of the 17th century, valuable maps of the Estonian area show the use of trees as boundary marks on the maps.

Trees as boundary marks were common during the period of the emergence of linear boundaries. However, the more precise and essential boundaries of landed property became, the less the trees corresponded to the need of demarcation of such boundaries. At the end of the 17th century, the use of trees was officially prohibited, yet they persisted in being drawn on the maps throughout the 17th century and even in the 18th century when new maps were based on earlier versions.

Folklore collections offer little information about boundary trees since their use had faded already in the 17th century, and boundaries of landed estates were of no great significance in the peasants’ everyday life. Folk tradition includes narratives about trees marked with crosses as related to death magic – a cross in memory of a deceased was carved into a tree growing on the boundary of their former homestead or village. Boundary trees marked with crosses disappeared at the same time that the tradition of cross-trees related to prevention magic became prominent. It is possible that boundary trees played some role in the appearance of commemoration cross-trees in the 17th century; however, the relationship between the two is uncertain.

Since ancient times, trees have been essential landmarks. Trees, both living and dead, stood as large visual objects in the landscape, and thus were appropriate boundary markers that could be remembered as well as represented on maps in the medieval and early modern times. Because of trees’ semi-permanent status – they would grow and change shape and eventually die – later professional surveyors preferred markers of stone placed on the boundary intentionally. Thus trees faded as property markers, but continued as a vibrant part of folk tradition and the Estonian landscape.

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- Fond 2072 [Stock 2072] – Collection of Maps

Estonian Folklore Archives of the Estonian Literary Museum:

- ERA = Folklore Collection of the Estonian Folklore Archives
- RKM = Folklore Collection of the Folklore Department of the Estonian Literary Museum
- EÜS = Folklore Collection of the Estonian Students' Society

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## Puud maavalduste piiritähisena kesk- ja uusajal

Ülle Tarkiainen

Eesti alal tähendas 13. sajandil toimunud Saksa-Taani vallutus suurt kvalitatiivset muutust kohalike piiride arengus. Uued võimu- ja omandisuhted olid kultuurimaastiku ümberkujundamise aluseks ning sellega seoses algas ka senise tsoonivõi võõndipiiri järkjärguline kõrvaletõrjumine lineaarse piiri poolt. Maavalduste piiride kirjeldamisel kasutati seejuures teiste piiritähiste kõrval kuni 17. sajandi teise pooleni ka puid. Rootsi võimud hakkasid 17. sajandi lõpul piiride tähistamist korrastama ja soovitasid puude asemel märkida piir maha kivide abil. Rahvapärimustes on piiripuude kohta napilt andmeid. Teated ristiga tähistatud puude kohta on seotud hoopis surmamaagiaga, mil kadunu mälestuseks tehti rist talu või küla piiril paiknenud puule.