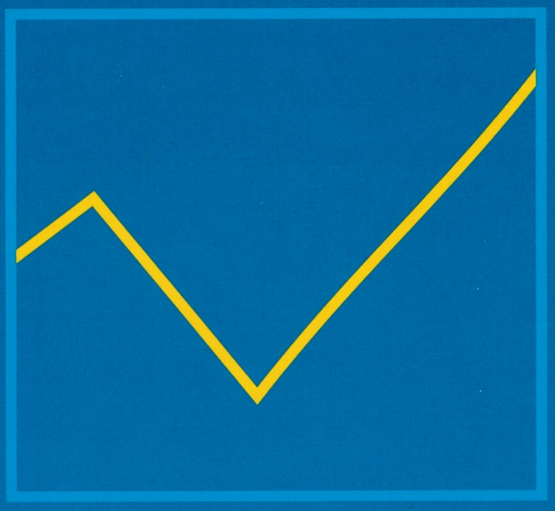
Traditional Reproduction of the Population in Estonia in the 17th and 18th Centuries

Heldur Palli



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Eesti Kõrgkoolidevaheline Demouuringute Keskus
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Montag den 12 Februar. 1778.

In dem abgewichenen 1777sten Jahre, sind in dem ganzen Herzogthum Ehstland und auf dem Dom gebohren, gestorben und copuliret.

	Gebohren. Mänl.	Gebohren. Weibl	Gestorben. Mänl.	Gestorben. Weibl.	Cop. Paar.
Bey der Dom Gemeine	28	31	18	10	14
= St. Jürgens	72	88	48	32	38
= St. Johannis in Ostharrien	91	76	47	56	39
= Jeglecht	64	52	28	21	30
= Kusal	111	101	75	53	52
= Joerden	113	106	44	71	58
= Kosch	124	118	55	60	61
= Kegel	119	108	77	42	89
= Rappel	154	157	77	71	86
= Haggers	116	118	61	51	61
= Nissi	76	68	34	33	38
= St. Matthias	54	34	27	26	26

)(Bey

Figure 1
Vital statistics of North Estonian parishes in "Revalsche wöchentliche Nachrichten"

INTRODUCTION

Over the past forty years, historical demography has emerged as a discipline attracting considerable interest on a global scale. Family reconstitution is carried out, using data derived from thousands of parish registers. Numerous monographs and articles on this particular area of research have appeared in print.

Comparative studies in the history of population are acquiring greater significance in modern days. The history of the population of Estonia is an integral part of European population development, especially as Estonia is located between Russia and Western Europe, on the imaginary "Hajnal line".

This book presents the results of a complex study of the population in three Estonian parishes in the 17th and 18th centuries, and is based on two monographs and an article [Palli 1973; Palli 1984; Palli 1988].

HISTORIOGRAPHY

Population issues first attracted attention in Estonia in the late 18th century. A. W. Hupel published partial data of the 1782 revision of souls [Hupel 1789, 429, 430, 463, 464, 498, 523, 524, 554, 555, 596, 597]. The local "Revalsche wöchentliche Nachrichten" newspaper, beginning from 1777, carried annual overviews of vital statistics of North Estonian parishes.

However, it was not until the establishment of the Republic of Estonia in 1918 that academic research into population history could start.

In 1925, P. Johansen suggested that around the year 1200 the population of Estonia totalled 100,000 – 150,000, while the 1936 estimate of H. Moora and E. Laid for the same period was 150,000 – 180,000 [Johansen, 1925, 2; Eesti ajalugu I, 1936, 151]. J. Vasar's population estimate was 250,000 – 280,000 for 1550, and 70,000 – 80,000 for 1640 [ERA II 1933, 927-928], while O. Liiv set the population figure as of 1640 at 100,000 [Eesti majandusajalugu 1937, 164].

In 1935, O. Liiv gave 325,000 – 350,000 as his population estimate for 1695 [Liiv 1935, 35], adhering, however, to 350,000 in a 1940 publication [Eesti ajalugu III, 187].

O. Liiv conducted a detailed analysis of the 1695-1697 great famine in Estonia, concluding that the disaster claimed 70,000 – 75,000 lives [Liiv 1938, 78].

The population situation in the 18th century was covered less extensively in the studies conducted in 1920-1940. Two articles were written about the 1710-1711 plague [Miller 1938; Kõpp 1929], and certain population data were featured in general surveys [ERA III 1935, 1346, 1357, 1518-1520; Eesti majandusajalugu 1937, 330, 427, 461].

A new phase in the study of Estonian population in the 17th and 18th centuries started in late 1960s, and research into the demographic situation in the Swedish period (1561/1645-1710) has made considerable progress since.

H. Palli provided new estimate of the Estonian population for 1695 [Palli 1996, 57], studies were conducted on the population of Tallinn between 1680 and 1710 [Munster-Rolle 1688, 1992; Veispak 1986].

H. Palli has studied the natural movement of Estonia's rural population in the years 1650-1710, the household structure in the parish of Vändra in 1683, and the population of

the parish of Rõuge in 1661-1696; and has published a monograph on the history of the population of Estonia until 1712 [Palli 1980; Palli 1974; Palli, 1973; Palli 1996].

Major progress has been achieved in the studies on population history of Estonia in the 18th century.

S. Vahtre has written a monograph and several articles on the rural population of Northern Estonia in 1782-1858, based on the lists of the revisions of souls [Vahtre 1973].

H. Ligi studied the population of Estonia in 1712-1816, making use of the specifications of land revisions, and published numerous articles [Ligi 1973; Ligi 1976; Ligi 1987 a, b].

R. Pullat has studied the urban population of Estonia in the 18th century [Pullat 1992; Pullat 1997].

L. Rootsmäe has published a monograph "Infectious diseases as the cause of death in Estonia in 1711-1850" [Rootsmäe 1987].

H. Palli has studied the natural movement of Estonia's rural population in the 18th century, relying on information derived from parish registers. He has carried out family reconstitution in two parishes – Karuse and Otepää – using the results in a complex study of the population in these parishes, and has written a monograph on the history of Estonian population in 1712-1799 [Palli, 1980; Palli, 1984; Palli 1988; Palli 1997].

A few other authors have covered certain problems pertaining to the Estonian population history of the 18th century.

ESTONIA

Over an extensive period of time (from 1227 until 1917/1918) Estonia lived under the rule of non-Estonians: the Livonian Order, the Tartu and Saare-Lääne bishops, Sweden, Poland, Denmark, and Russia. Throughout the whole period the Baltic Germans constituted the dominant local ruling group, wherefore most of the place names in Estonia exist in two forms – Estonian and German. In the areas populated by Swedes the Swedish variations of place names were used in parallel, and served as official forms during the "Swedish period" (from 1561/1625/1648 until 1710). In the majority of cases, however, the German and Swedish names coincide.

For some toponyms in Estonia there exist Old Russian forms dating from the 11th and 13th centuries. After 1710 these were replaced by forms resembling German ones. For example, the Old Russian name for Tallinn (Reval in German) was Kolyvan, yet from 1710 until 1918 the city was styled Revel' in documents written in Russian.

In contemporary official usage the Estonian forms of local names are dominant, while in historical monographs and articles written in German or Swedish, the old German variants prevail.

Russian historiographers often refer to the Russian forms as well.

A few examples. The island (and parish) of Vormsi is *Ormsö* in Swedish and *Worms* in German. The city of Pärnu is *Pernau* in German and *Pernov* in Russian. However, the old Russian name for Tartu – *Iuriev* (in 1710-1893 *Derpt*, in German *Dorpat*) was the town's official name in 1893-1917.

In certain cases such parallel usage of toponyms in various languages may cause some difficulty in understanding.

The Estonian form for Estonia is *Eesti*, or *Estland* in German and Swedish. Yet in 1583-1917 Northern Estonia constituted a province called *Estland* in German and Swedish. In Estonian this province was referred to as *Eestimaa*, and in Russian as *Estliandia*, while *Estoniya* is the Russian name for Estonia.

Also, parallel Estonian and German usage of special terms was common.

All toponyms and terms referred to in this monograph are in Estonian, while the German, Swedish, Russian and Latvian forms are put in brackets, combined with the letters G, S, R and L respectively. In certain cases the Estonian terms or place names are in brackets, with E added to them.

E.g. Tallinn (*Reval* G, *Revel'* R); Vormsi (*Worms* G, *Ormsö* S).

Occasionally a village, a manor and a parish had the same name: in the 18th century a village, a manor and a parish shared the name Otepää, later a market town of the same name emerged.

In this book Estonia means the province of Estland (Northern Estonia) and the northern part of the province of Livland (Southern Estonia, *Lõuna-Eesti* or *Põhja-Liivimaa* in

Baltic provinces

Estonian). In the Swedish period two counties in mainland Livland – Pärnumaa (*Kreis Pernau* G) and Tartumaa (*Kreis Dorpat* G), and the island of Saaremaa (*Ösel* G, S) constituted Northern Livland. In 1690 Livland was divided into two districts – Estonian and Latvian. Thus in 1690-1710 Estonia included Estland, Estonian District of Livland and Saaremaa. In 1722-1784 Estonia included Estland, plus three counties (Tartumaa, Pärnumaa and Saaremaa) in Livland. In 1784 Tartumaa was divided into two counties – Tartumaa and Võrumaa (*Kreis Werro* G), while Pärnumaa was split into Pärnumaa and Viljandimaa (*Kreis Fellin* G). Combined with Saaremaa and Estland, these counties form Estonia. Southern Livland (*Vidzeme* L) was mostly populated with Latvians.

Estland included four counties: Harjumaa (*Harrien* G), Järvamaa (*Jerwen* G), Virumaa

(*Wierland* G), and Läänemaa (*Wiek* G). The present-day Republic of Estonia is slightly larger than "Estonia" as represented in this book, including the town of Valga and some areas in the east.

The Estonian language belongs to the Finnic branch of Finno-Ugric group of languages, with Finnish being its closest large related language. The Estonian orthography is largely phonetic. A is pronounced like u in the English word but, e like e in pen, i like i in this, o like o in top, u like u in put. Ä stands for a in man, ö is equal to ö in German, Swedish or Finnish, while ü is like ü in German or u in French; õ is pronounced like y in Polish, j like y in the English word yellow. With a few exceptions, the main stress in Estonian words falls on the first syllable.

A few meanings in Estonian: *maa* – land; *saar* – island; *järv* – lake; *jõgi* – river; *maakond* – county (in some contexts also *maa* means county: Tartumaa is the county of Tartu); *küla* – village.

In Swedish, *ö* denotes island.

Estonia is located on the eastern coast of the Baltic Sea (*Läänemeri* E; *Ostsee* G). Estonia's mainland neighbours are Russia in the east and Latvia in the south, most of the border with Russia stretching lengthwise along Lake Peipsi (*Peipus* G; *Chudskoe ozero* R) and along the Narva River. In the north Estonia borders on the Gulf of Finland (*Soome laht* E; *Finnischer Meerbusen* G), in the west her coasts are washed by the Baltic Sea and the Gulf of Riga (*Liivi laht* E; *Rigaer Bucht* G).

The largest islands in Estonia are Saaremaa, Hiiumaa (*Dagö* G, S), Muhu (*Moon* G) and Vormsi. Altogether Estonia has more than one thousand sea islands and islets.

Estonia is a flat territory with the average elevation of 50 metres, the highest point is Suur Munamägi Hill (318 m above sea level).

The climate in Estonia, influenced by the North-Atlantic Stream, is mild with the annual average temperature around 5 degrees Celsius (-6 in February and +16 in July). The cyclonic activity occurring in the northern part of the Atlantic Ocean causes strong winds, high precipitation and abrupt fluctuations in temperature.

The annual average precipitation varies between 550 and 800 mm. The length of a summer day is three times that of a winter day (18 and 6 hours respectively).

The territory of Estonia holds numerous inland water bodies. The two largest lakes in Estonia are Lake Peipsi and Lake Võrtsjärv (*Wirtzjerw* G), the principal rivers are the Suur Emajõgi River (*Embach* G) connecting Lake Peipsi and Lake Võrtsjärv, the Narva River, which has the largest runoff in Estonia, and the Pärnu River, longest in the central part of the country.

The territory of present-day Estonia has been inhabited by ancestors of Estonians for the past 5,000 years (10,000 years according to some scholars).

The conquest of Estonia by German crusaders and the Danish crown took place over the period between 1208 and 1227. The conquest ended with Northern Estonia in the possession of the Danish crown, Southern and Western Estonia and the islands divided between the Livonian branch of the Teutonic Order and the Dorpat (Tartu) and Ösel-Wiek (Saare-Lääne) bishops. Germans (Baltic Germans) assumed the position of the ruling elite, settling in towns and manorial estates. In the 13th and 14th centuries, Swedish colonists (who later became known as coastal Swedes) populated coastal areas in Western and Northern Estonia and the small islands. Estonians were peasants in the countryside and formed the lower social groups in towns, their social status deteriorating gradually, through the subsequent enserfment process in particular.

In 1346 King of Denmark Valdemar IV sold his domains in Estonia (Harjumaa and

Virumaa) to the Livonian Order and in 1346-1559/1561 the whole of Estonia was incorporated into a confederation of Livonian states in the territories of present-day Estonia and Latvia. Thus most of Estonia fell under the rule of the Livonian Order, while the Tartu and Saare-Lääne bishops retained their supremacy in part of the country.

Following the Livonian War (1558-1583) Estonia was divided between Sweden (Northern Estonia or Estland), Poland (South Estonian mainland or Northern Livland) and Denmark (Saaremaa and Muhu).

After Sweden had emerged victorious from the 1600-1629 conflict with Poland, the Truce of Altmark (1629) established the Swedish rule in Livland. With the Brömsebro Peace Treaty (1645), which ended the 1643-1645 war between Denmark and Sweden, Denmark ceded Ösel, whereupon the whole territory of present-day Estonia came under the Swedish rule.

After the conquest, mostly during the second and third decades of the 13th century, Estonians were baptised by the German and Danish priests and were formally converted into Catholicism, yet the old pre-Christian beliefs were maintained for centuries afterwards. Since the 1520s, Lutheranism began to gain foothold and became the dominant religion in Estonia. Under the Swedish rule the Lutheran church further reinforced its position.

In the second half of the 17th century Russian Old Believers settled in some areas of the western shores of Lake Peipsi.

In the middle of the Northern War (1700-1721) the Russian troops in 1710 occupied Estonia, and by the 1721 Nystad Peace Treaty the Estonian territory was incorporated into the Russian Empire, whereas the Baltic Germans retained their local supremacy.

The Baltic Provinces (Estland, Livland and from 1795 on Kurland, *Kurzeme* L) enjoyed certain autonomy. These provinces were ruled by German landlords, while the urban elite were also predominantly German, and the German language had the status of the official language. The language of instruction in primary and secondary schools in towns was German, while Estonian was used in village and parish schools in rural areas.

As for the religious affiliation, Germans, Estonians and Swedes were Lutherans, Russian Orthodox or Old Believers (*Starovery* R).

The 17th and 18th centuries witnessed the total predominance of serfdom in the territory of Estonia, based on compulsory labour dues (corvée) of the enserfed population. Peasants also paid rent for their farmsteads (land), and had no right to settle in other estates or towns without the landlord's permission. Landlords exercised the right to inflict corporal punishment upon their serfs for minor misdemeanours.

The Estonian peasants were divided into four main groups: farmers (in fact tenants) and their kin (*adratalupojad, pererahvas* E, *Hakenbauern*, G); cotters (*vabadikud* E, *Lostreiber* G) – peasants with or without a small plot of land living in small cottages of their own; farmhands and maids, often with their families (*sulasrahvas* E, *Knechte* G); and manor servants (*mõisateenijad* E, *Gutsgesinde* G).

In rural areas, the upper social strata (landlords, senior staff in manors, artisans, millers, clergymen) were mostly of German origin.

Swedish fishermen and peasants living in coastal areas and on some islands were formally free, yet led a life similar to that of Estonian peasants.

Russians inhabiting the shores of Lake Peipsi were generally occupied in fishing.

In the late 17th, 18th centuries the counties in Estonia were divided into parishes and manorial holdings (*mõisavald*, E; *Gutsgebiet* G). A manorial holding consisted of a manor with adjoining fields, meadows, forests and other land, villages and single farms with

the serf population. Single farms were more common in South-Eastern Estonia where villages were often no more than just groups of single farms.

The administrative division of territory into parishes (*kihelkond*, E, *Kirchspiel* G) and counties (*maakond*, E, *Kreis* G) was not unfamiliar in the Estonia of the pre-conquest era. Counties were made up of parishes, which combined several villages and single farms. In the early 13th century, the number of parishes in Estonia amounted to 45. Before the conquest the territory was divided into eight large (Sakala, Ugandi, Saaremaa, Läänemaa, Harjumaa, Rävala, Järvamaa and Virumaa) and four small counties (Alempois, Mõhu, Nurmekund and Vaiga), each of the latter comprising one parish. Parishes were subsequently split, so by the 17th and 18th centuries the number of rural parishes had increased to about one hundred.

In the 17th and 18th centuries Virumaa, Järvamaa and Saaremaa occupied more or less the same territory as in the 13th century. The combined territories of Harjumaa and Rävala formed the county of Harjumaa, while only the northern part of the 13th century Läänemaa represented the Läänemaa of the 17th and 18th centuries. Pärnumaa in the same period comprised Sakala, Nurmekund and a part of Läänemaa. Tartumaa included Ugandi, Mõhu and Vaiga. The provincial centre of Estland was Tallinn, the centre of Livland was Riga. The county centres (*maakonnalinn,* E; *Kreisstadt*, G) were: Tallinn in Harjumaa, Rakvere (*Wesenberg*, G) in Virumaa, Paide (*Weissenstein*, G) in Järvamaa, Haapsalu (*Hapsal*, G) in Läänemaa, Tartu in Tartumaa, Pärnu in Pärnumaa, and Kuressaare (*Arensburg*, G) in Saaremaa.

SOURCES

LAND REVISIONS

From the 13th century (Liber Censuses Daniae, 1240) until late 17th century land revisions remained the principal source for population history in Estonia. In the late 17th, early 18th century land revision lists, maps supplemented by description books, and parish registers served as information sources. As part of the policy of the revocation of estates (the Reduction, where most of the fiefs held by the nobility were taken back by the state), the Swedish administration in the 1680s carried out a revision, formally called the Inquisition, in Northern Estonia. This revision recorded farmers as well as heads of the cotters' households on many estates by names, in some cases also providing the number of household members. In 1688 a land revision was carried out in Southern Estonia.

Within the next two decades a number of maps of manorial estates and larger areas, complete with description books, were drawn up, recording the names of farmers, and thus providing valuable information for population estimates.

There are other, additional sources available: for example, the lists of inhabitants of the parish of Vändra (*Fennern* G) in Pärnumaa, Southern Estonia have survived till the present day. These lists describe the parish population farm by farm and village by village, providing names and relationships to the household head (wife, child, brother, sister, farmhand, etc.) for every individual, failing, however, to specify the ages or dates of birth of the persons recorded.

In 1695-1697 a great famine devastated Estonia. In the wake of the famine a commission was established to survey the damages. The commission's report provides ample information on the mortality in these years [Liiv 1938].

PARISH REGISTERS

Other important sources providing information of the period's population events were parish registers. There were approximately one hundred rural parishes in Estonia, with 39 parish registers covering the period of 1650-1710 available, most of them, however, containing gaps from a few months to a few years. Only three parish registers – Rõuge (*Rauge, Raug* G) 1661-1696, Põltsamaa (*Oberpalen* G) 1663-1703 and Noarootsi (*Nuckö* G, S) 1663-1710 – have survived without gaps.

Parish registers of the said period covered three most important demographic events: baptism, burial and marriage. Baptism registers recorded the following characteristics: name of the newborn, surname and name of his/her father, the date of baptism, residence (village, manorial estate of the father's household). The date of the birth and the name of the newborn's mother as well as godparents' names were also recorded in some parishes. Whenever relevant, illegitimacy was recorded in most parish registers as a rule.

Burial registers recorded the date of burial, the name of the deceased, his/her last residence, and in some cases his/her position in the household and/or family relation (son/daughter of somebody, wife/widow of somebody etc.) were provided. The date of death was recorded in very few parishes. Registers were often incomplete, covering just elementary entries like "child", "farmhand", "unknown person" etc. In the 17th century

and in the first decades of the 18th century many bodies were buried in village cemeteries without relevant registration.

Marriage registers recorded the following characteristics: names of the couple (in case of first-time marriage, name of the bride's/groom's father was usually mentioned as well), residence and wedding date. If the bridegroom and the bride came from different parishes, the wedding, as a rule, took place in the church of the bride's home parish. The marriage was sometimes also recorded in the groom's home parish register.

PLOUGHLAND REVISIONS

The Great Northern War (1700-1721) had a devastating impact on parish registers, which were predominantly destroyed or lost. In 1712-1730 new pastors were ordained to replace those who perished in the 1700-1711 plague epidemic, and fresh registers were introduced in most parishes.

The principal sources of population history for the period of 1710-1799 are ploughland revisions (*adramaarevisjonid* E; *Hakenrevisionen* G), soul revisions (*hingerevisjonid* E; *Seelenrevisionen* G; *revizii dush* R), parish registers and personal books (*personaalraamatud* E; *Personalbücher* G).

Land revisions were conducted in Northern Estonia in 1712, 1725-1726, 1732, 1739, 1744, 1750, 1757, 1765, 1774, in South Estonian mainland in 1715, 1721-1725, 1731, 1739, 1744, 1751, 1757-1758, and in Saaremaa in 1716, 1731, 1738, 1744, 1750, 1756. The most comprehensive were those of 1732 and 1739 for Northern Estonia, and those of 1731 and 1744 for Southern Estonia. The revision of 1712 was incomplete and had numerous gaps.

The revision lists covering Northern Estonia are more complete than those for Southern Estonia, where the specifications often failed to record all the cotters.

The land revision specifications (*vakuraamatud, spetsifikatsioonid* E; *Spezifikationen* G) described the inhabitants of farms and cotters' households (the land revisions did not include manor residents) by giving the name of the household head and the number of household inhabitants in the breakdown of gender and age groups: working-age persons (15-59 years), male and female; elderly people of 60 years and above and infirm people, male and female; children (0-14 years), boys and girls. In some cases, additional groups were introduced for household heads and their wives, individuals from other manors, and freemen – male, female, children.

SOUL REVISIONS

The soul revisions were initiated by the Russian Government with the view of introducing the Russian system of head tax in the Baltic Provinces. In Russia the first revision of souls was carried out in 1719. The 18th century soul revisions in Estland and Livland were conducted in 1782 and 1795. The revision lists (*hingeloendid* E; *Seelenrevisionlisten* G; *revizskie skazki* R) recorded all persons (with the exception of certain small privileged groups) by their name and age, household by household, village by village, and manor by manor. The lists provided the name and age in full years of each household head, followed by the name and age of his wife, children (giving age in years, for infants under one year the age was given in months or days), other kin of the household head or his wife, farmhands and their family members, if any, maids and other residents. The relationship of each individual to the household head was mentioned directly or indirectly.

In the 1795 revision, particulars for each individual were linked to the previous revision of 1782. Of all revision lists of Northern Estonia, 95 per cent survive, of South Estonian lists – about 70 per cent. The 1795-1782 linkage, however, considerably improves the availability of information.

PARISH REGISTERS

There were approximately one hundred rural parishes in Estonia in the 18th century, with registers from more than eighty parishes available. Most of them, however, start from the second half of the century, and some suffer gaps. Entries in the 18th century parish registers provide more information than in the previous century: the baby's date of birth, the name of his/her mother, godparents' names were given; in most cases the date of death and age of the deceased person was put down, and some registers mentioned the cause of death. From the 1730s onwards nearly all deceased persons were buried in churchyards, with parish registers recording the burial fact.

A new valuable source – personal books (resembling the *status animarum*) – was introduced in some parishes. These books recorded the names and ages (or birth years) of all residents of the parish household by household, also providing information about individuals' literacy and any residential changes (household, village, parish, etc.), births and deaths.

The parish registers and personal books were kept by pastors and/or parish clerks, the land revision specifications and the lists of soul revisions were maintained by manor clerks [Palli 1995; Must 2000]. The quality of registers differs greatly by parishes and manors, which necessitates an individual evaluation of each source.

LOCATION OF SOURCES

Land revision documents for the 13th-17th centuries are stored in the archives of Denmark, Poland and Sweden. North Estonian ploughland revisions are available in Estonian archives, those of Southern Estonia are archived in Moscow. A few of these revisions have appeared in print. The soul revisions, parish registers and personal books are kept in Estonian archives.

NAMES

In the 17th and 18th centuries Estonian peasants had no fixed surnames (family names). Thus family reconstitution presumes knowledge of the Estonian name system prevalent in these centuries to facilitate the identification of individuals and families. Until the introduction of family names in 1816-1832, Estonian names had the following structure: surname (*lisanimi* E), grandfather's name, father's name (all three in the genitive case), and the person's name in the nominative case, e. g. OTSA (surname) Tooma (grandfather's name) Mardi (father's name) Jaan (first name, or rather the last name according to the Estonian system). Such full forms, however, were rarely used. In most cases either the grandfather's name or the names of both grandfather and father were dropped, and shorter forms like OTSA Mardi Jaan or OTSA Jaan used instead.

It was customary for the woman to assume her husband's surname upon marriage.

For example, OKI Tõnu Kai married OTSA Jaan, and became OTSA Jaani Kai, or OTSA Kai. Register entries for females often contained definitions like *naine* (wife), *lesk* (widow), *tütar* (daughter): *OTSA Jaani naine Kai* (Kai the wife of OTSA Jaan), *OTSA Mardi lesk Anu* (Anu the widow of OTSA Mart), *OTSA Jaani tütar Tiiu* (Tiiu the daughter of OTSA Jaan). Register entries for juvenile males were defined by *poeg* (son): *OTSA Jaani poeg Toomas* (Toomas the son of OTSA Jaan).

Occasionally German translations (*Weib, Tochter, Witwe, Sohn*) were used.

For a researcher, the most disturbing phenomenon is the instability of surnames. Members of one family could well have two or more different surnames: DAUSKA Mihkel and ZIKKUSE Mihkel appeared to be one and the same person. A man's surname could also change during his lifetime, particularly if he acquired a new profession or new skills, or settled in another manor or parish. OTSA Jaani Pärtel thus became known as RAUDSEPA Pärtel (*raudsepp* or *sepp* meaning blacksmith). Sometimes a person was put down in the parish register under his father's name as a surname: OTSA Jaani Pärtel was recorded as JAANI Pärtel.

The surnames of farmhands and cotters in particular were subject to changes, since it was a tradition to call farmhands by the employer's name (e.g. *OKI Mardi sulane Peep*, denoting Peep the farmhand of OKI Mart).

The surnames recorded in parish registers on occasion differed from those entered into land revision specifications and soul revision lists, which can be explained by the pastors' and clerks' (mostly ethnic Germans or immigrants from Germany) poor knowledge of Estonian and the Estonian system of names.

The situation varied by parishes: in some parishes the surnames hardly ever changed in records, certain surnames staying unchanged for centuries, while in other areas surnames kept changing frequently, or else they got no mention in soul revision lists at all.

FRF 1	FRF 2
VAABI Siimu Jüri married (m) 1745 12 07	SIIMU Jüri
JAANI Mihkli Eed (daughter), died (d) 1794 01 15	Eed
Their children	Their children
Jaan born (b) 1752 05 01, d 1752 05 07	
Eed b 1754 02 27	Eed m 1775 11 01
Hans b 1757 06 12 d 1757 09 23	
Tõnis b 1758 12 02 m 1799 12 08	
Reet b 1762 10 17	Reet m 1786 10 18
Ann m 1767 11 25	Ann b 1747 08 30
Mari b 1749 10 08	Mari m 1776 11 18

The instability of surnames renders family reconstitution (FR) particularly difficult and laborious, wherefore it is advisable to combine the process with family identification. Family identification relying exclusively on parish registers is conducted as follows. Two family reconstitution forms (FRF, see above) each feature a husband and wife with identical names and the same place of habitation (village). It is obvious that VAABI Siimu Jüri can be identified as SIIMU Jüri, while the two FRFs in fact describe the same family, and can thus be pooled into one (VAABI Siimu Jüri). Similar comparison is in principle indispensable in all analogous cases (FRFs), where the couples' first names (last in the Estonian system) and places of residence coincide, particularly if they lived in the same village (manor) at the same time.

Combining two series of sources

Studies of Estonia's demographic history heavily rely on two series of sources from the 18th century – the parish registers and personal books on one hand, and revisions (land revisions, soul revisions) on the other, facilitating the linkage of FRFs to the land revision specifications and soul revision lists (SRL). As already stated, the two first soul revisions conducted in Estonia (1782, 1795) recorded all individuals in a household by their names, ages and relationships to the household head. If the surname and names of individuals recorded in the FRF and SRL coincide, their ages coinciding more or less, it leaves no doubt that the two documents cover the same family. In case the surnames differ, however, other particulars (first names, ages etc.) have to be compared, provided the persons in question live in the same village (manor).

The land revision specifications barely give the name of the household head and the number of household inhabitants broken down into the following age groups: working-age persons, elderly people of 60 years and above and infirm people, children (0-14 years). The linking of FRFs to the data provided by specifications is thus a complicated procedure.

Follows an example of linking FRFs and land revision specifications. In the first half of the 18th century, in the Oeküla village of the Nehatu (*Nehat* G) manor, parish of Karuse (*Karusen* G), there was a farmstead of SURDA Tõnis. The FRF of SURDA Tõnis and his family renders the following information: SURDA Jüri Tõnis was born in 1686, died on June 5, 1746. His wife Made was born in 1688 and died on February 26, 1751. They were married in 1710. Their son Mart was born in 1711 and married in November 1731, their second son Mats was born in 1716 and married in December 1737. Their daughter Made was born in 1719 and got married in 1739, their daughter Ann was born in 1721 and got married in 1744. Kade, a maid working on the farm got married in 1733.

The FRF of SURDA Mart states that he married on November 30, 1731. His wife Made died on January 12, 1736. Their son Mihkel was born on September 16, 1733 and died in 1756. SURDA Mart married for the second time in 1736. His wife Eva gave birth to a daughter, Reet.

The next step is to link the above information to the data provided by land revision specifications. According to the 1712 land revision, three persons lived on the farm of SURDA Tõnis: the head of the household, his wife, and a child. The FRF identifies SURDA Jüri Tõnis, his wife Made and their son Mart. The 1726 land revision listed the following residents on the farm of SURDA Tõnis: the head of the household, his wife, a man of working age (15-59 years), three children (a boy and two girls). The FRF identifies them as SURDA Tõnis, his wife SURDA Made, their sons SURDA Mart and SURDA Mats, their daughters SURDA Made and SURDA Ann.

The specifications of the 1732 land revision recorded three men of working age, three women of working age and two girls on the farm of SURDA Tõnis. The FRFs identify the men as SURDA Tõnis and his two sons Mart and Mats. The three women are identified as Made the wife of SURDA Tõnis, Made the wife of SURDA Tõnise Mart, and Kade the maid. The two girls were the daughters of SURDA Tõnis – Made and Ann.

According to the 1739 land revision specifications, the farm of SURDA Tõnis housed two working-age men, three women of working age, one old or infirm man, one old or infirm woman and two children (a boy and a girl). The FRFs give the names of SURDA Tõnis, his sons Mart and Mats, Made the wife of SURDA Tõnis, Eva the wife of SURDA Mart, and Ann the wife of SURDA Mats. The boy was SURDA Mart's son Mihkel, and the girl was SURDA Mart's daughter Reet.

The lists of the 1782 soul revision described four households of the grandsons of SURDA Tõnis: SURDA Mardi Hans, SURDA Mardi Juhan, SURDA Matsi Jaan, and SURDA (or KOPLI) Matsi Jüri. The FRFs and land revision specifications thus helped identify the inhabitants of SURDA Tõnis' farm by their names, track the changes in the structure of the household of SURDA Tõnis and reconstruct the progress of SURDA Tõnis' offspring, their families and households. The household of SURDA Tõnis was initially a simple family household, which evolved into a multiple-family household when his sons married. The multiple-family household was subsequently split into four simple family households.

The linkage of FRFs to land revision specifications is successful in most cases, though not always as easy or clear-cut as in the above example. As a matter of course, all the FRFs of a manor or a whole parish could be linked to the land revision specifications and soul revision lists, and the interlinkage of data available in parish registers, land revisions, revisions of souls, personal books, etc. provides an excellent opportunity to check and evaluate these indispensable sources of population history and reconstruct demographic processes in parishes [Palli 1983; 1995].

NAME SYSTEMS OF NON-ESTONIANS

As regards the other ethnic groups living in the territory of Estonia in the 17th and 18th centuries, Germans had stable family names, and often held more than one first name. Swedish fishermen and peasants had no family names, and were identified by the first name and father's name, e.g. Olof Matsson; the same applies to Russian fishermen. The Swedish officials, landlords, merchants and other members of the upper classes, however, held stable family names.

Family reconstitution for ethnic minorities is a process considerably more laborious than it is for Estonians. The German population was rather mobile, and the identification of members of the Swedish and Russian minorities is complicated due to their deviating name system.

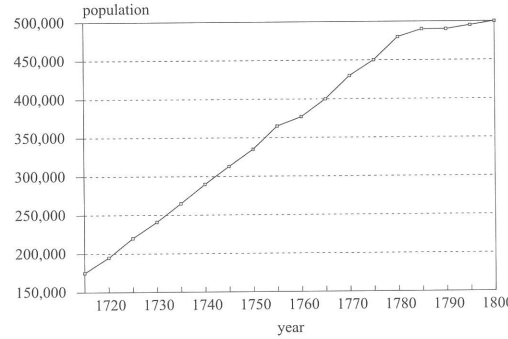
BASIC DEVELOPMENT PATTERNS

POPULATION

Land revisions, parish registers, revisions of souls and other sources give an insight into the demographic development in Estonia. An estimated 150,000 – 180,000 people lived in Estonia around 1200, while the estimate for 1550 is 250,000 – 300,000. After the wars (the Livonian War of 1558-1583, and the war between Poland and Sweden in 1600-1629), the famine of 1601-1602 and several plague epidemics, the population of Estonia rapidly grew from 120,000 – 140,000 in 1638 to 350,000 – 400,000 in 1695.

Figure 2

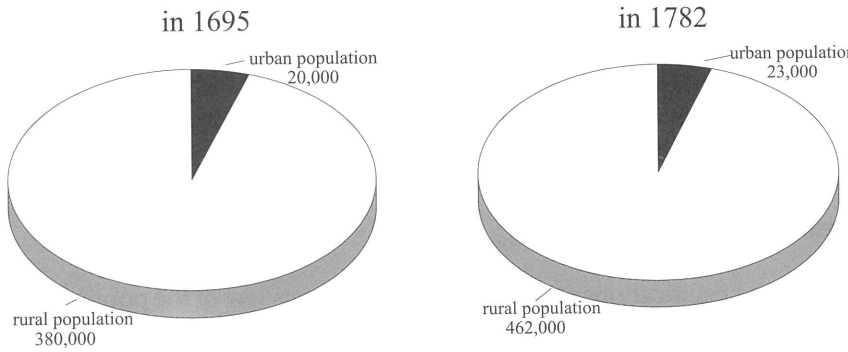
Population of Estonia



After the great famine in 1695-1697, which claimed 70,000 –75,000 lives, the population of Estonia totalled 280,000 – 325,000. The hostilities on the Estonian soil during the Great Northern War (1700-1710) and the plague epidemic of 1710-1711 all took their toll on the population, which in consequence dwindled to 150,000 – 170,000, the level of the year 1200. Thereafter the population gradually increased to 240,000 in 1730, further on to 400,000 by 1765, and to 480,000 by 1780, reaching 500,000 in 1799. In 1881 the total population of Estonia amounted to 890,000, and grew to 980,000 by 1897.

Figure 3

Rural and urban population in Estonia in 1695, 1782



Urban population

The urban population made up 7-8 per cent of the total population in the late 16th century, and 5-6 per cent in the 17th and 18th centuries (urban population figures amounted to 20,000 in 1550, 20,000 in 1695, 5,000 in 1712, and 23,000 in 1782). Tallinn was the only

town with the population near or above ten thousand (7,000 – 8,000 in 1550, 12,000 in 1688, and 10,700 in 1782), while the residents of Tartu numbered 2,000 in 1685 and 3,400 in 1782; the population figure for Narva remained stable at 3,000 in 1685 and in 1782, and the number of inhabitants in Pärnu increased from approximately 1,000 – 2,000 in 1685 to 2,000 in 1782.

Rural population

The rural population made up 94-95 per cent of the total population of Estonia. The rural population may be divided into village population (*külarahvas* E) living in villages – on single farms and in the small cotters' houses – and constituting 90 per cent of the total population, and manor population (*mõisarahvas* E), living in the manors. The manor population included serf servants and freemen – landlords and senior staff in manors, mostly of German origin. Also clergymen in rural parishes were Germans. However, there were marked differences between parishes.

Ethnic structure

In 1695, Estonians comprised about 90 per cent or more of the total population, while the percentage of Germans was five and that of other ethnic minorities – less than five per cent. Germans lived mostly in towns and manors, Swedes (approximately 1.5 per cent of the total population in 1695, and about one per cent in 1782) inhabited coastal areas and islands, Russians lived on the shores of Lake Peipsi and in some towns.

In towns, Estonians made up about half of the population, Germans accounted for about 40-45 per cent.

The period following the wars waged in the third decade of the 17th century and the second decade of the 18th century witnessed massive immigration of non-Estonians (Finns, Russians, Latvians etc.), which led to the share of Estonians falling to 80-85 per cent. The immigrants became assimilated within 30-40 years, however.

Figure 4
Ethnic structure of the population of Estonia in 1782

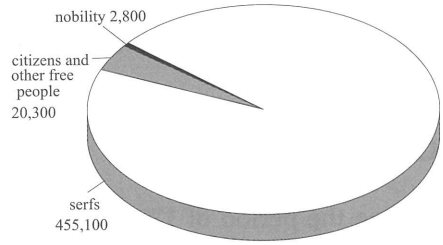
Gender and age structure

The land revision specifications and SRLs provide an overview of the population's gender structure. In 1731/1732, males constituted 50.3 per cent of the village population (which in turn made up about 90 per cent of the total population), the relatively high percentage explainable by a massive immigration of men after the plague. By 1782 the percentage of males had dropped to 49.8. In 1731/1732 the share of children (0-14 years of age) among the village population was 43.1 per cent. In a sample of parishes (*Rakvere – Wesenberg* G, *Harju-Jaani – St. Johannis* G, *Järva-Madise – St. Matthäi* G, *Kanepi – Kannapäh* G, *Vändra, Rannu – Randen* G, *Püha – Pyha* G, *Karuse*) the percentage of children in 1782 came to 40.4.

Social structure

Figure 5

Social structure of the population of Estonia in 1782



The social structure of the population of Estonia as of 1782 could be described as follows: nobility formed 0.6 per cent, citizens and other freemen (excluding free peasants) made up 4.2 per cent, while the percentage of peasants amounted to 95.2. The majority of peasants were serfs (there were only about 6,000 free Swedish peasants and an insignificant number of free Estonian peasants), mostly farmers with their kin. Cotters and farmhands made up 10-30 per cent of the peasant population, while the percentage of serf servants in manors did not exceed five. These proportions varied from parish to parish.

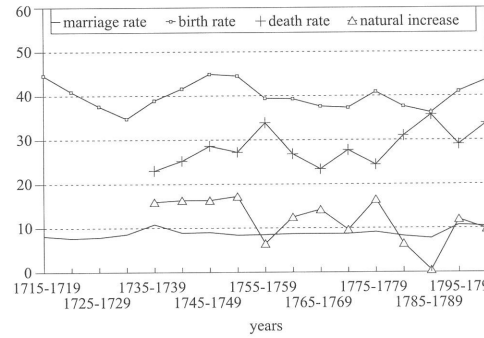
Demographic trends

Parish registers give some idea of the vital statistics and natural movement of the population.

In the period of 1690-1694 the crude birth rate in Estonia was approximately 40 per thousand, and marriage rate 8 per thousand. The crude mortality rate in "normal years", when the country was not ravaged by war, famine or plague, was an estimated 25-30 per thousand. Between 1720 and 1799 the mean birth rate was 39.6 per thousand. The mean death rate was 26.5 per thousand in 1740-1749, and 29.1 per thousand in 1750-1799. The mean marriage rate in 1720-1749 was 8.7 per thousand, and 8.9 per thousand in 1750-1799. These averages apply to longer periods, however, and the birth, death and marriage rates in fact fluctuated from year to year (Tables 34, 41).

Figure 6

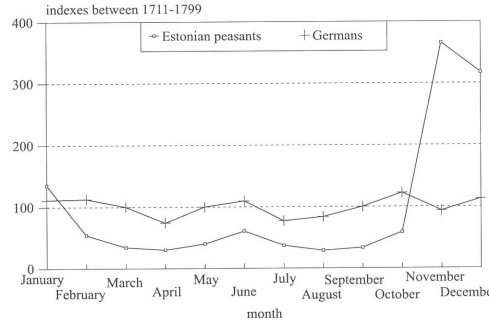
Marriage, birth and death rates and natural increase in Estonia in 1715-1799 (per thousand)



Until 1735 it was common practice to bury the deceased in village burial grounds (*kalmed* E) without recording the burial facts in parish registers. Administrative pressure, the potent religious influence of the Moravian Brethren (Herrnhutian missionaries), and the spread of school education in the 1720s and 1730s put an end to the practice. The death rate in 1720-1739 may be estimated at 20-25 per thousand. Illegitimacy in rural parishes was low, about two per cent in the late 17th century and in 1711-1799; yet considerably

Figure 7

Seasonality of marriages in Estonia in 1711-1799



higher in towns. The natural increase after the plague epidemic was negative in the years 1756, 1757, 1773, 1783, 1788, and 1789.

Seasonality was a strong characteristic feature of marriages in Estonia's rural parishes in the 17th and 18th centuries. Estonian (also Swedish) peasants typically married in the winter months of November, December or January (2/3 to 3/4 of all marriages contracted in a year). This, however, did not apply to Germans living in the country, or urban residents (Table 17).

Conscription

During the period of 1797-1874 the Baltic provinces had to provide conscripts for the Russian army (0.2-2 per cent of the male population annually) for a service period of 25 years. The conscripts being young men aged between 17 and 35, the practice had a negative impact on demographic development, though in the initial years (1797-1799) this influence was relatively insignificant.

Farms and villages

Land revisions, maps, revisions of ploughlands and personal books describe the 17th-18th century settlement patterns, revealing marked differences between Northern and Southern Estonia with regard to farm types and structure. A typical North Estonian farmstead accommodated only one household, while cotters in most cases lived separately on the outskirts of villages. Homesteads in South Estonian mainland were either simple farms (one household on a farm) or co-partners' farms (two or more households on a farmstead, each tilling their own field with the rest of land in joint use), while cotters lived predominantly on the lands of farms. Thus each farmstead usually comprised several households. Single farms were numerous in Southern Estonia, South-Eastern Estonia in particular, and prevalent in some parishes [Palli 1996; 1997].

RÕUGE (1661-1696)

HISTORICAL OUTLINE

In the 17th century, Rõuge (*Rauge, Raug* G) was a parish in the Tartu county of Southern Estonia (an administrative re-division in late 18th century placed it in the Võru county), a territory bordering on Latvia and Russia, or, to be more exact, on the region of Setumaa inhabited by Orthodox Estonians, whose dialect resembled the Võru dialect spoken by the people of Rõuge. The parish covered an area of 860 square kilometres, the population totalled 12,100 in 1782, and 17,511 according to the 1881 census. This part of the country is hilly, with small lakes and rivers located in the valley bottoms, and since the valleys tended to be marshy, hillsides had to be made arable. The towns nearest to Rõuge in the 17th century were Tartu (65 km) and Valga (83 km).

A few facts from the history of the Rõuge parish.

In the period of 1582-1625 the parish was under the rule of Poland, and of Sweden in after years. During the 1656-1661 conflict between Sweden and Russia the parish stayed under Russian control, but was returned to Sweden by the Kärde (*Kardis* G) peace treaty in 1661. In 1695-1697 Rõuge experienced crop failures, which were followed by famine.

Regional division of the parish

In the 1680s, 13 manors were listed in the Rõuge parish: Haanja (*Hahnhof G*), Nursi (*Nursie G*), the Parsonage, Pindi (*Bentenhof G*), Ruusmäe or Rogosi (*Rogosinsky G*), Rõuge (*Raug, Rauge G*), Saaluse (*Salishof G*), Sänna (*Sennen G*), Tsooru (*Fierenhof G*), Vana-Kasaritsa (*Alt-Kasseritz G*), Vana-Roosa or Roosa (*Rosenhof G*), Vastse-Kasaritsa (*Neu-Kasseritz G*), and Viitina or Kose (*Kosse, Kosch G*).

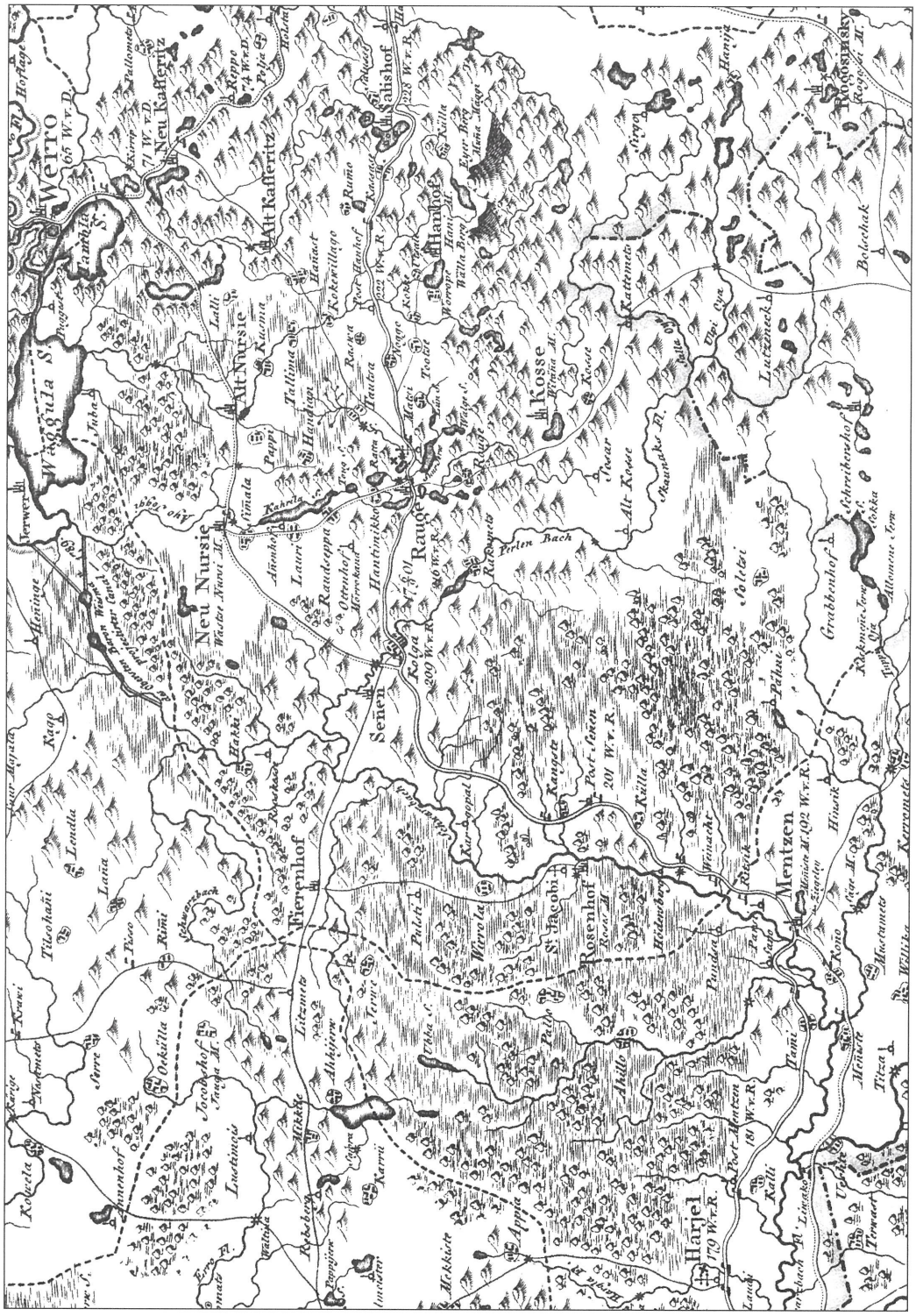
Specification of data sources

The sources available for the population of Rõuge in the second half of the 17th century are relatively complete for this particular period. The principal source is the parish register covering the period from November 1661 to May 1696. The register provides data in the breakdown of manorial estates and contains a list of communicants by households.

Other important sources are the maps of the manors and villages in Rõuge and description books from 1681 and 1684, recording the names of the farmers and facts about the farmsteads. A land revision was carried out in the area in 1688, indicating the names of the farmers, and for certain manorial holdings also the number of inhabitants on each farm.

The parish register of Rõuge was drawn up by Pastor Johann Nicolaus von Hardung. In 1696 he left Rõuge and moved to Valmiera (Latvian District), thus the Rõuge parish register among the rest carries information on the Estonian diaspora in the Latvian District (Gaujiena, Aluksne).

"Germans" (freemen), most of them members of privileged groups (nobility, clergy, manor officials, artisans), also innkeepers and millers, constituted about two per cent of the total population of Rõuge. Many Germans lived in the parish only temporarily. The



The Rõuge parish from "Atlas von Liefland" of L. A. Mellin 1798.

Rõuge parish register holds entries of 143 baptisms, 49 burials and 29 marriages of Germans.

The registration of baptisms, marriages, etc. of Estonians living in the Latvian District was sporadic. The parish register of Rõuge contains entries of 272 baptisms, 49 burials and 131 marriages of Estonians living in the Latvian District, giving evidence of a stable Estonian diaspora in the Latvian District in the 17th century [Palli 1973].

The baptism entries provided only the date of baptism and the name of the infant and his/her father. Since the recordings were made by manorial estates, and single farms prevailed in Rõuge, no mention was made of village names. Burial records registered the date of burial and the name of the deceased. Marriage records contained the wedding date, names of the couple, and in case either came from another manor area or parish, the place of residence was also mentioned.

Specification of name recordings

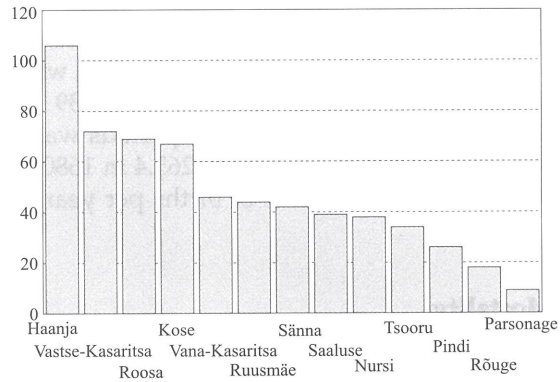
Since in 1661-1696 the use of surnames in Rõuge was rather unstable and the observable period short, the identification of persons is difficult.

POPULATION

There are no exact population figures available for Rõuge in the period of 1661-1696. According to the 1688 revision, farmsteads in Rõuge numbered 369, households totalling 571. The description books and maps from 1681-1684 recorded 440 farmsteads and 610 households [Liitoja-Tarkiainen 2000, 226-227]. The maps listed 210 single farms with 364 households, while the revision recorded 254 single farms and 391 households in Rõuge. Also the number of co-partners' households was relatively high, probably due to the landscape characteristics: the single farms were located on hillsides and in the dales.

Figure 8

Farmsteads in Rõuge in 1684



Between 1638 and 1684 the number of households grew rapidly: in 1638 there were 43 settled and 30 unsettled households in the manors of Rõuge, Nursi, Kose and in the Parsonage, by 1684 the number of settled households had increased to 132 [Palli 1973, 104].

The revision of 1688 in a greater detail described the population of Vana-Kasaritsa, Vastse-Kasaritsa, Ruusmäe, Pindi, Sänna, Saaluse, Tsooru, Vana-Roosa and Haanja, while the records for Rõuge, Nursi, Viitina and the Parsonage only provided the names of household heads.

The accounts for Haanja listed 579 individuals: 240 adult males and 72 boys (altogether 312, or 53.9 per cent of the total population of Haanja), and 205 adult females and 62 girls (altogether 267, or 46.1 per cent of the total population). The percentage of minors in

Haanja did not exceed 23.1. The revision counted a total of 553 persons in Vana-Kasaritsa and Vastse-Kasaritsa – 303 males and 250 females (54.8 and 45.2 per cent respectively), of them 73 boys and 49 girls (altogether 122, or 22.1 per cent of the total). The percentage of boys among minors was 59.8. The number of females and children seems to be too low, however, as the percentage of minors could be expected to have been around 35-40, and that of females about 48-51. Thus it is likely that the revision of 1688 did not include cotters at all, meaning that the population figures were underestimated. Combining the data of the 1688 revision, FRFs and the lists of communicants, the population of the Rõuge parish can be estimated at 5,500 – 6,000 as of 1661, and at 8,400 – 9,000 as of 1695.

DEMOGRAPHIC PROCESSES

The Rõuge parish register for the period of 1661-1696 contains entries of 8,442 baptisms, 1,922 marriages and 1,630 burials of the ethnic Estonian population.

Fertility

The birth rate in Rõuge (considering the under-registration of infants who died without baptism) was 38.7 per thousand in 1680-1684, and 38.2 per thousand in 1690-1694. The marriage rate was approximately 8 per thousand. In the period of 1661-1696, 105 boys were born for every 100 girls. Only 0.8 per cent of newborn babies were illegitimate, the percentage being lower than in most parishes, which suggests some under-registration of illegitimate children.

A few facts about the dynamics of births. In 1682 only 174 babies were born (the minimum for the whole period of 1682-1695), while the number of births in 1687 totalled 351 (maximum for 1662-1695), dropping to 339 in 1690 and further to 326 in 1695. The annual average of births per five-year periods was the following: 210.4 in 1665-1669, 215.0 in 1670-1670, 235.2 in 1675-1679, 265.4 in 1680-1684, 267.4 in 1685-1689, and 289.8 in 1690-1694. The mean number of births per year in 1690-1694 was 1.38 times higher than in 1665-1669.

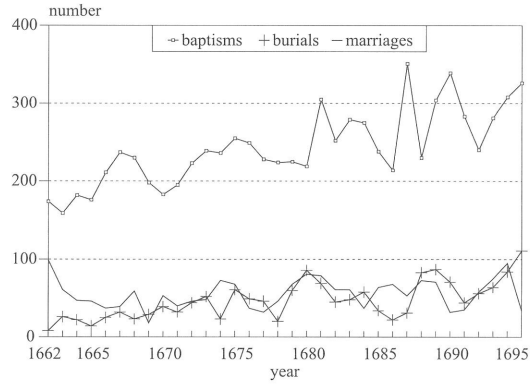
Mortality

In Rõuge the registration of burials was severely inadequate. In 1665-1669 an average of 210.4 baptisms were registered annually, while the mean number of recorded burials remained at 24.6, which suggests a major under-recording of deaths. The actual number of deaths in 1661-1696 is estimated at about 6,000.

The deceased in Rõuge were predominantly buried in village burial grounds or cemeteries (*kalmed* E), yet very few cases were mentioned in parish registers (mostly recording the burial of a head of a farm).

Figure 9

The number of baptisms, burials and marriages in Rõuge (Estonians living in the parish)



Some of these village graveyards originated from the pre-Christian period. In Rõuge the old pre-Christian worship and a mixture of the Christian and pre-Christian faiths were widely spread. J. N. von Hardung reportedly had to resort to military force in his struggle against the pre-Christian (or half-Christian) practice of sacrifice in the parish. The Rõuge parish was not far from the Catholic areas under Polish rule and Orthodox areas administered by Russia, which accounts for the religious instability of the population.

Nuptiality

The annual total of marriages in Rõuge varies from 18 (minimum) in 1669 to 95 (maximum) in 1694. The annual average of marriages per five-year periods was the following: 39.8 in 1665-1669, 52.0 in 1670-1674, 50.2 in 1675-1679, 68.8 in 1680-1684, 65.8 in 1685-1689, and 59.0 in 1690-1694. The average for the period of 1685-1689 was 1.65 times, and the average for 1690-1694 was 1.48 times higher than the average for 1665-1669 (Table 34). In 1661-1696, 4.32 baptisms were registered per one marriage.

In the breakdown of harvest years (a harvest year lasting from August 1st in year X to July 31st in year X+1), judging by the higher birth and marriage figures, harvest was good in 1674, 1680, and 1688. Crop failures were experienced in 1669, 1684, and 1691.

SEASONALITY

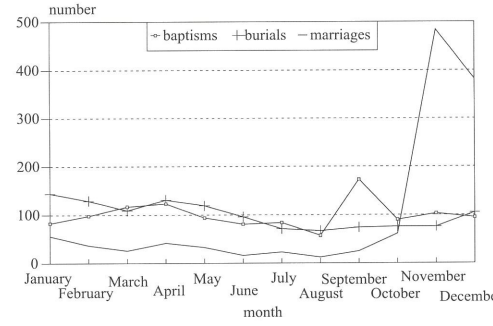
The index of baptisms in Rõuge was higher in September (173), April (123), March (117), and November (103), and lower in June (81), January (83), and July (84) (Table 35).

The number of deaths was higher during winter and spring months (from December to May).

The seasonality of marriages was extremely marked in Rõuge: more than two thirds of all marriages of the year were concluded in November and December, while a mere seven per cent of marriages took place during the period from June to September. Such seasonality of marriages can be explained by the peasants' low standard of living: it was only after the harvest, threshing and slaughter of farm animals that they had sufficient reserves of food and enough leisure time. The period from June to September, on the other hand, was a busy working season, when the peasants hardly had any time to marry.

Figure 10

Seasonality of baptisms, burials and marriages in Rõuge in 1661-1696 (indexes)



However, the differences between the monthly indexes of marriages (November 484, August 12, November/August 40) and baptisms (September 173, June 81, September/June 2) were extremely conspicuous.

The great famine of 1695-1697 claimed more than 900 victims in Rõuge. Within one year, from autumn 1696 to autumn 1697, 105 burials took place in the local churchyard, and 545 in village cemeteries [Liiv 1938, 330-331].

SOME RESULTS OF FAMILY RECONSTITUTION

Family reconstitution for Rõuge was performed on the basis of parish registers. Since the period covered by parish registers was short (1661-1696), the information available for family reconstitution was incomplete.

Women in Rõuge married for the first time mostly at the age of 20-25, with only a few females marrying at the age of 17-19 or 30-34. The mean interval between the wedding and the birth of the first child was 18.9 months, the interval between the first and the second births was 33.3 months (Table 1). The age-specific marital fertility rate in Rõuge was 0.39 in the 20-24 age group, 0.41 in the 25-29 age group, and 0.35 in the 30-34 age group.

Table 1

Intervals between baptisms in Rõuge (Estonians) (in months)

Rank of baptisms	0-1	1-2	2-3
Interval	18.9	33.3	35.7

Palli, 1973, 114

HOUSEHOLD STRUCTURE

There is virtually no information available on the mean household size or household structure in Rõuge in the second half of the 17th century. However, there is evidence of the existence of co-partners' households, the number of households considerably exceeding that of farmsteads. It is also possible to draw a conclusion that on some co-partners' farms the partners lived in separate houses [Palli 1973, 103].

Rõuge is a large parish, and records provide ample demographic information on the 18th century, which is the reason why a comprehensive study of the population of the parish in the 18th century remains to be completed yet.

KARUSE (1685–1799)

HISTORICAL OUTLINE

Karuse was a medium-sized parish in the county of Läänemaa, western part of Northern Estonia, covering an area of 250 square kilometres on the Baltic Sea coast. The population of Karuse was 4,056 in 1881, and 3,600 as of 1922. The region is relatively flat, with a few low hills; the southern and central parts of the parish are swampy. The climate is mild in winter and cool in summer. Karuse used to be a farming area, fishing was also practised along the coast. The inhabitants of Karuse spoke the North Estonian dialect. Karuse lies 38 km from Haapsalu (*Hapsal* G), 46 km from Pärnu, and 97 km from Tallinn. In 1581-1710 the parish was under the Swedish rule, and was incorporated in the Russian Empire in 1710, as was the rest of Estonia.

Regional division of the parish

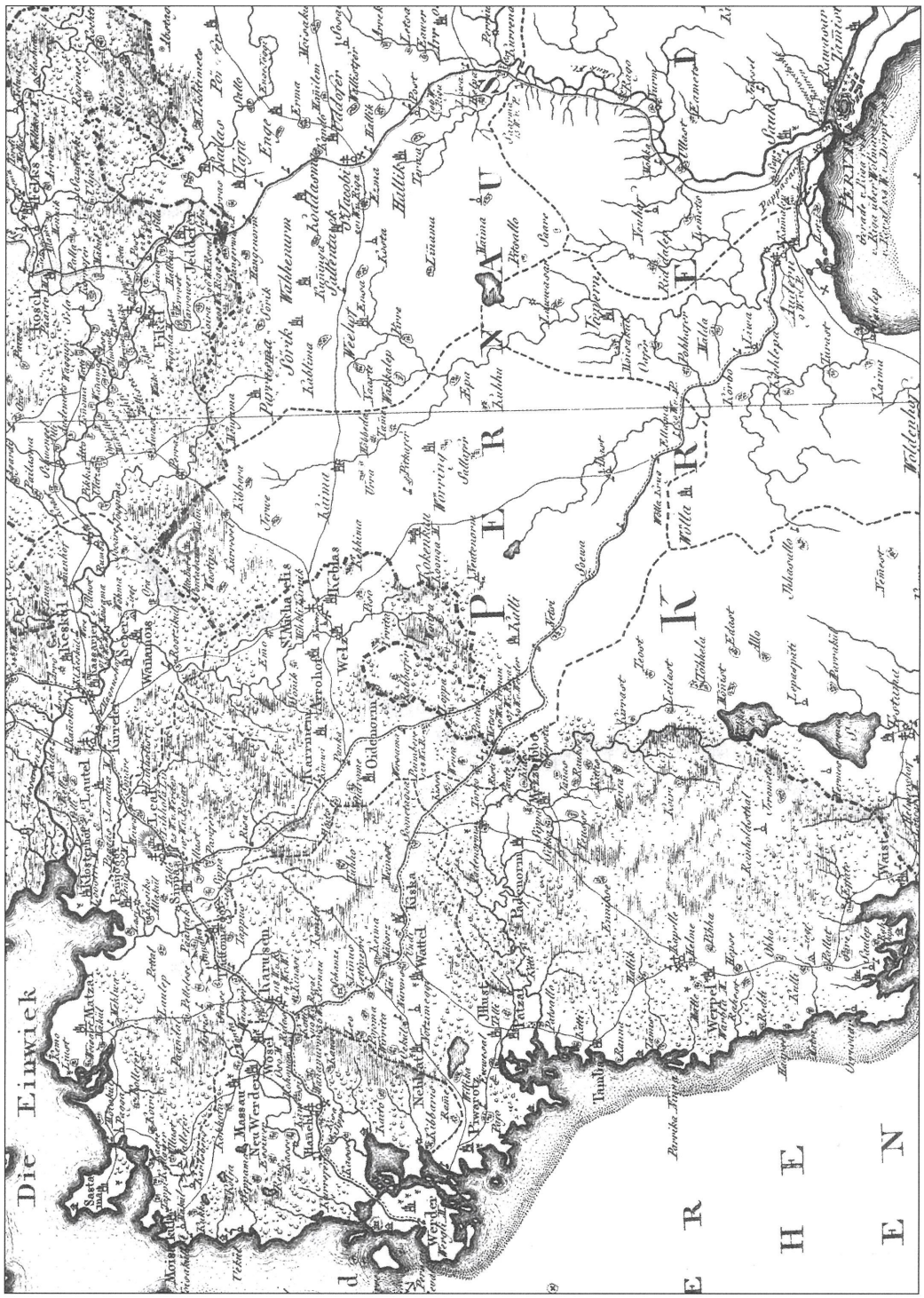
In the 17th and 18th centuries the following manorial estates were listed in the parish of Karuse: Matsalu (*Matzal* G), Vatla (*Wattel* G), Nehatu (*Nehhat* G), Saastna (*Sastama* G), Tuudi (*Tuttomäggi* G), Piivarootsi (*Piwarotz* G), Lihula (*Leal* G), Paadremaa (*Padenorm* G), Illuste (*Illust* G), and the Parsonage. The estates of Matsalu, Vatla, Nehatu, Tuudi, the Parsonage, Piivarootsi and Illuste were located entirely in the Karuse parish, so was most of Saastna. Karuse also encompassed some villages belonging to the manors of Lihula (most of the estate falling within the Lihula parish) and Paadremaa (mostly within the Hanila parish). At the end of the 17th century Mõisaküla, which earlier used to be a part of Paadremaa, became a manor in its own right, and in the second decade of the 18th century a new manor called Mõtsu was formed out of another part of Paadremaa. Further on in 1773 Kiska (yet another part of Paadremaa) became a separate manor as well.

The Karuse parish was comprised of the following villages: Petaaluse, Meelva, Laulepa, Liustemäe, Mäe and Võigaste (properties of the Matsalu manorial estate); Poanse, Järise, Metsküla, Paga (Saastna); Linnuse, Kaarepere, Nurmsi, Köiemäe (Vatla); Oeküla, Virita, Lõo (Nehatu); Tapuste, Kunilepa (Tuudi); Hõbesalu, Murista, Musta (Illuste); Torgu (Mõisaküla, since 1773 Kiska); Tuhu (Paadremaa); Kinksi (the Parsonage). As of 1795, the village of Pajumaa was a property of Vatla, Võigaste belonged to Saastna.

Specification of data sources

The sources used for the complex historical-demographic analysis are the following: the parish registers of Karuse from the period of 1685-1799 (with gaps from September 1690 to September 1691, and from October 1710 to June 1712); the Inquisition (land revision) of 1686, ploughland revisions (*adramaarevisjonid* E) from the years 1712, 1726, 1732, 1739, and 1750, the revisions of souls from 1782 and 1795.

Parish registers were usually kept by pastors or their assistants. In Karuse the parish registers were introduced by Joachim Werneccius, the local pastor in 1685-1690. He was in 1691 succeeded by Johann Georg Philippi, who died of plague in 1710, leaving Karuse



The Karuse parish from "Atlas von Liefland" of L. A. Mellin 1798.

without a pastor for two years. In 1712-1750 the pastor in Karuse and Hanila (*Hannehl* G) was Christian Anton Kettler, who re-established the parish registers; he was followed by his son Caspar Anton Kettler (1750-1773), whose successor was Hermann Johann Middendorf (1774-1829).

The parish registers contain entries of baptisms, burials and marriages. The baptism entries recorded the date of baptism (from the second half of the 18th century onwards also the birth date was put down), names of the newborn and his/her father (from April 1745 on, the mother's name was mentioned as well), and the family's place of residence (village).

The burial entries provided the date of the burial (from the 18th century onwards, the date of death was noted as well), the name of the deceased, his/her last place of residence, and his/her age (recorded in 1750-1773 and from 1798 onwards). The burial entries for children, married women and widows had the following structure: the name of the child, wife or widow, name of the father (husband), complete with a comment (son, daughter, wife, widow). However, the records were often inadequate, particularly before 1710, merely containing nondescript entries like "a child", "a man", "a farmhand", etc.

The marriage entries included the names of the bridegroom and the bride, their respective places of residence before the marriage, and the wedding date.

As already stated, the land revision specifications for 1712-1750 described the farms and cotters' households in manors. The land revision of 1712 provided highly incomplete statistics covering only part of the farms and cotters' households. However, the information concerning the inhabitants of the farms and cotters' households covered by the revision was complete on most occasions.

The land revision of 1726 was much more comprehensive and helpful, and the next two (those of 1732 and 1739) were the best in the series. Thereafter the land revisions became increasingly deficient. Land revisions were conducted to find out the number of ploughlands (*adramaa* E; *Haken* G; *uncus* in Latin) – a unit used for an assessment of the dues required from the estate, and of land (field) usage. The number of ploughlands depended on the number of men able to work. On the other hand, the manors' obligations to the state (mostly military obligations) also depended on the amount of ploughlands. Peasants were registered in manorial estates only in case the total number of ploughlands in the manor remained below their number prior to the Great Northern War. As soon as the number of ploughlands in a manorial estate reached the level posted in the "Swedish period", however, dues were fixed and no land revision was performed in this particular manor. From the 1744 revision onwards the data provided by land revisions became increasingly incomprehensive as the number of manors where the revisions were conducted, diminished.

The revisions of souls were carried out in 1782 and 1795. All peasants in the households were listed by name and age. The 1795 revision of souls was linked to that of 1782, and any changes in personal history that occurred between the two revisions (age in years as of the later date, reason for not being mentioned in the 1795 revision – death, moving to another parish or manorial estate) were recorded in the 1795 revision.

Children born during 1782-1795 and dead before 1795 were not recorded, however. Newcomers, who settled in Karuse in 1782-1795 and were still living in the parish in 1795, were entered on the revision lists. The land revisions and revisions of souls were conducted by manor officials.

The parish registers of Karuse carry enough information to suit the purpose of family reconstitution.

The data drawn from the family reconstitution forms (FRF) can be used for making up FRF lists (FRFL) of residents of a village, manor, or a whole parish as of a certain date. The FRFLs from the date of a land revision are comparable with the land revision specifications. A linkage of FRFLs and land revision specifications allows of the identification of most of the inhabitants of farms and members of cotters' households (village population) in Karuse by name. In a number of cases it is possible to eliminate the influence of surname changes and errors occurring in the names of household heads. The FEFLs for 1782 and 1795 are comparable with the soul revision lists.

Specification of name recordings

Follows an example. The ploughland revision specification as of 1726 records a peasant household (farm) of ANDRESE Jüri in the village of Laulepa, Matsalu manor. The farm housed the head of the household (farm), his wife and four children under 15 – one boy and three girls. The land revision specification of 1732 no more mentions any household head called ANDRESE Jüri in Laulepa, not even a household head with the surname ANDRESE. On the other hand, the specification lists a household head TAMBI Aadu Jüri, whose household contained a man unable to work, a man able to work, a woman able to work, and five children – a boy and four girls. In 1739 the widow of TAMBI Ado was put down as the head of the farm.

The FRF of TAMBI Aadu Jüri of the village of Laulepa (Matsalu manor) provides the following information: the head of the family TAMBI Aadu Jüri was born on January 22, 1693, married on May 29, 1714, and died on September 13, 1736. His wife Reet was born on February 4, 1692, and died on November 4, 1756. They had six children: two sons, Aadam (born on August 19, 1714), Jaan (born on June 12, 1731, married in 1763), and four daughters: Eed (born on May 29, 1718, got married in 1746), Liisu (born on November 27, 1720, got married in 1767), Maret (born on August 5, 1725, got married in 1753), and Reet (born on July 29, 1728).

The FRFL for 1726 mentions head of the family TAMBI Aadu Jüri, his wife Reet (able to work) and four children – son Aadam (twelve years old) and three daughters: Eed (eight years old), Liisu (five years old) and Maret (one year old). Since there was no other family in Laulepa with the head called Jüri, and the structure of the household of ANDRESE Jüri matches the structure of the family of TAMBI Aadu Jüri, a conclusion can be drawn that TAMBI Jüri and ANDRESE Jüri in fact stand for one person.

The structure of the household of TAMBI Aadu Jüri is identical to the structure of the family of TAMBI Aadu Jüri in 1732 (FRF and the land revision specification of 1732), the new evidence thus supporting the conclusion drawn above.

The land revision of 1739 gives TAMBI Aadu's widow as a household head in Laulepa. This, however, is a mistake – the record should read TAMBI Aadu Jüri's widow (Reet) instead.

Such procedures are time-consuming yet rewarding, enabling the identification of most of the population of farms and cotters' households by name, whereas it is possible to follow not only the demographic development and social changes, but also the social structure of the population as well as changes in the structure of households. The land revisions and revisions of souls in combination with FRFs provide a complex and rather detailed picture of the population of Karuse in the late 17th and 18th centuries. A closer scrutiny of the data reveals, however, some underrecording of births, and of deaths in

particular, mostly in the 17th century, first decade of the 18th century. Also, the land revision lists often recorded individuals' ages inaccurately.

Population

In 1686 the population of Karuse totalled 2,800 – 3,000. The most populous manors of the parish were Matsalu and Saastna, the villages of Petaaluse, Meelva, Metsküla, Poanse, Nurmsi, Oeküla, Piivarootsi and Tapuste had more than 100 inhabitants each. In 1686 Karuse comprised about 360 farms and 50 cotters' households. The 1710-1711 plague epidemic travelled to Karuse from Pärnu in September 1710. In the wake of the plague Karuse was one of the most devastated parishes in Estonia. The sources being largely inadequate, it is quite difficult to estimate the number of inhabitants in Karuse after the epidemic. The land revision of 1712 listed 372 inhabitants in Karuse, while the lists of communicants for 1714 included 576 adults. Combined FRFLs and communicants' lists set the number of residents at 832. The estimated population as of 1714 was 830 – 900, one third of them living in Matsalu.

The next land revision was carried out in 1726. Since land revisions recorded only the serf population in villages, the actual number of inhabitants, including the German residents, other freemen, manor staff, etc., was slightly higher than given in the revision documents. The land revision of 1726 listed 180 households and 1,052 serfs in the villages of Karuse, while the total population of the parish can be estimated at 1,300 – 1,400. The most populous manor was Matsalu with 379 residents in its villages. No significant changes took place in population figures between 1726 and 1732, the increase not exceeding 50 individuals.

The land revision of 1739 was conducted more meticulously, as a result of which the under-registration of village population was inconsiderable. The revision listed about 1,300 serfs living in the villages, while the total population of the parish can be estimated at about 1,500 – 1,550. In Matsalu the village population amounted to 453. There were a total of 185 households in the parish (Table 26). By 1750 the population of Karuse had reached 1,800.

In 1782 a revision of souls was carried out, the only exceptions not included in the lists of souls being the nobles, clergymen and certain other small population groups. Providing the name and age of each individual and describing his/her relationship to the head of the household, the lists have proved a very valuable source allowing of a fairly exact estimate of the population size. According to the revision lists drawn up in 1782, Karuse had 2,870 inhabitants. With the addition of nobles, clergymen and the other omitted categories, the total population of the parish can be set at 2,950. The village population in Karuse was 2,474 persons, farms and cotters' households numbered 310 and 37 respectively. Compared to 1686, the population of Karuse was more or less the same in 1782, but the number of farms and cotters' households was higher in 1686 (360 and 50 respectively) (Table 27). Manor population made up 16 per cent of the total in 1782.

In 1795 the residents of Karuse numbered 3,000. The records for 1816 give 3,030 as the parish population, and list 286 farms and 42 cotters' households. Throughout the 18th century, the population growth figures for Karuse were the following: 175 persons, or about 8.9 per thousand a year in 1726-1739; 275 (14 per thousand a year) in 1739-1750; 125 (6.5) in 1750-1760; 350 (15.6) in 1760-1770; 676 (19.3) in 1770-1782, and 50 (1.3) in 1782-1795.

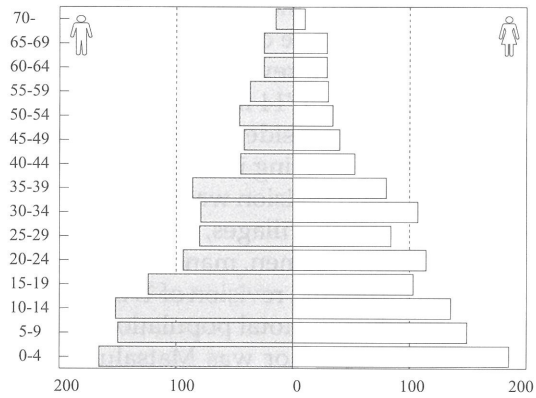
Population age structure

According to the land revision specifications, the village population distribution by gender was as follows: 513 males (50.2 per cent) and 509 females were put down in 1726; and 614 males (49.7 per cent) and 622 females were counted in 1739. The revisions of souls recorded 1,456 males (50 per cent) and 1,457 females in 1782; and 1,450 males and 1,526 females in 1816. The land revision specifications from 1726 onwards give a clue as to the number and percentage of children (0-14 years). The soul revision lists of 1782 and 1795 enable a more detailed analysis of age distribution.

In 1726, 55.8 per cent of the population fell into the 0-14 age group and 44.2 per cent into the age group of 15 and above, while the percentages for 1739 were 40.9 and 59.1 respectively. Thus, during the 1726-1739 period the age distribution changed markedly. The age structure of the population of Karuse as of 1782 is available in a greater detail. Children (0-14 years) made up 39.7 per cent, people aged 15-29 years constituted 25.4 per cent, the 30-59 age group formed 19.1 per cent, the 45-49 age group accounted for 10.3 per cent, and people aged 60 years and above – 5.5 per cent of the total (Table 28).

Figure 11

Age structure in Karuse in 1782



Between 1739 and 1782 the percentage of children was dropping gradually, whereas the general age distribution remained quite stable, the younger age groups being the largest. It has to be noted that the share of children in village population (as of 1739) was higher than in manor population (the 1782 revision listing the village population and manor population without nobility).

Marital status

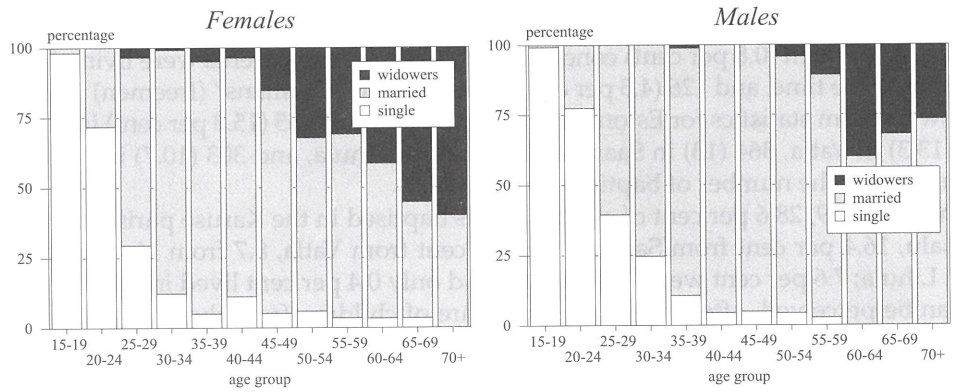
As of 1782, 0.8 per cent of males and 1.9 per cent of females in the 15-19 age group were married. In the 20-24 age group, 22.6 per cent of males and 28.3 per cent of females were married, the respective percentages in the 25-29 age group being 60.5 and 67.1. The percentage of married persons reached 90 for females in the 35-39 age group, and 95.6 for males in the 40-44 age group, declining in the older age groups, while the number of widows and widowers gradually increased. All in all, 57.4 per cent of the adult population and 34.4 per cent of the total population of Karuse lived in wedlock (Table 29).

There were appreciable differences between the social strata with regard to the age and marital status distribution. Thus in 1782, 42 per cent of the members in the stratum of farmers were aged under 15, while 6.1 per cent were aged 60 and above, the respective percentages being 21.5 and 0.7 among farmhands. In the 20-24 age group, 32.9 per cent of females in the stratum of farmers, and only 16.7 per cent of females in the stratum of farmhands were married.

The total number of married couples was 386 in 1782; in 30 couples the spouses were of the same age (difference less than one year), in 131 couples the husband was 1-4 years

Figure 12

Marital status of the village population in Karuse in 1782



older than the wife, in 76 couples the husband was 5-9 years, and in 57 couples 10 or more years older than the wife, while in 64 couples the wife was 1-4 years older than the husband, in 25 couples the wife was 5-9 years, and in three couples 10 or more years older than the husband.

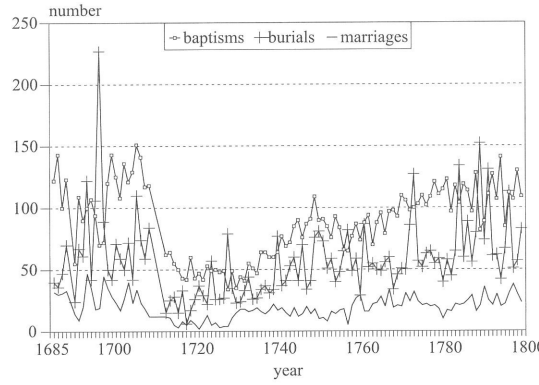
POPULATION PROCESSES

Fertility

In 1686-1695 the annual average of baptisms in Karuse was 111.8, amounting to 117.5 in 1696-1709 (128, if the famine years 1696-1697 are excluded). The number of baptisms varied in the breakdown of years, reaching the peak in 1706 with 151 baptisms, while the minimum (70 baptisms) was recorded in 1697. After the plague epidemic (1710-1711), the mean number of baptisms per year fell considerably (53.7 in 1713-1719; 46.7 in 1720-1729, and 52.1 in 1730-1739). The next thirty years witnessed an abrupt rise of the mean to around 80 (82 in 1740-1749; 81.4 in 1750-1759, and 87.5 in 1760-1769), further on to 100 and 110 (107 in 1770-1779 and 1780-1789; 111.8 in 1790-1799, and 119.4 in 1800-1809). In 1820-1829 the annual average of baptisms increased to 125.7, and to 158.8 in 1830-1839. Thus it was not until the 19th century that the 1686-1709 level was attained again.

Figure 13

Number of baptisms (births), burials (deaths) and marriages in Karuse according to the parish registers in 1685-1799



The FRFs and revision lists of 1782 and 1795 help track down unregistered children, whose baptisms were not entered in the parish registers. Some of them died without baptism (215 cases in 1689-1799), as revealed by burial entries (for infants aged one month or above), information was also derived from marriage entries and the 1782 and 1795 revision lists. About two hundred of such cases have

been established. It is possible that on occasion, infants were baptised in another parish, in which their parents temporarily resided.

The parish registers of Karuse covering the period of 1686-1710 contained 2,817 baptism entries, 23 of them (0.8 per cent) concerning children whose parents were living in other parishes at the time, and 126 (4.5 per cent) pertaining to "Germans" (freemen) (Table 34). Follow baptism statistics for Estonian children by manors: 435 (15.3 per cent) in Matsalu, 377 (13.3) in Vatla, 364 (13) in Saastna, 320 (11.3) in Lihula, and 303 (10.7) in Nehatu. In other manors the number of baptisms was smaller.

In 1712-1749, 28.6 per cent of all the infants baptised in the Karuse parish came from Matsalu, 16.4 per cent from Saastna, 9.8 per cent from Vatla, 8.7 from Nehatu, and 8.5 from Lihula; 7.6 per cent were "Germans", and only 0.4 per cent lived in other parishes. As can be perceived, after the plague the share of children from the Matsalu manorial estate was much bigger than before the plague – the people of Matsalu had suffered less from the epidemic. The share of Saastna had grown as well, though not as much as that of Matsalu, the same applies to the children of free persons (Germans).

In the second half of the 18th century the distribution of baptisms between manors was the following: Matsalu 20.1 per cent, Saastna 16.9 per cent, Vatla 15.0 per cent, Nehatu 9.3 per cent, and Lihula 8.0 per cent, while Germans made up 4.3 per cent. A mere 0.1 per cent of the baptised infants were from other parishes.

The average birth rate in Karuse was about 40 per thousand. The exceptionally high birth rate (51.7) in the 1740s can be explained by changes in the age structure (a large number of women of fertile age).

The number of illegitimate children was insignificant: 266, or 2.2 per cent in 1686-1799, 1.2 per cent in 1686-1709, 1.8 per cent in 1712-1749, and 2.6 per cent in 1750-1799.

Mortality

The mean number of burials per year was 60.6 in 1686-1695, and 81.1 in 1696-1709. In the famine years (1696-1697), quite a few of the deceased were buried in village cemeteries without relevant records in parish registers. Immediately after the plague epidemic the annual average of burials remained low (20 in 1713-1719), yet rose gradually to one hundred by the beginning of the 19th century (36.4 in 1720-1729; 53 in 1740-1749; 66.5 in 1770-1779; 74.1 in 1790-1799; 100.2 in 1800-1809). A considerable underrecording of deaths can be surmised in Karuse, amounting to approximately 430 cases over the period of 1713-1799, mostly between 1713 and 1730.

The distribution of burials by manors in 1685-1710 was as follows: 14.8 per cent in Matsalu, 12.8 in Saastna, 11.8 in Vatla, 11.7 in Lihula, 11.2 in Nehatu, and freemen 4.6 per cent.

In 1712-1749, the respective percentages were the following: 27.1 in Matsalu, 17.1 in Saastna, 10.3 in Vatla, 8.4 in Nehatu, 7.2 in Lihula, and freemen 7.7.

In 1750-1799, the distribution was: Matsalu 18.4 per cent, Saastna 17.3, Vatla 16.5, Nehatu 8.8, Lihula 7.3, and freemen 5.1 per cent.

The burial statistics were close to the distribution of baptisms.

The expectation of life in Karuse in the 18th century can be calculated by various methods. Thus, according to A. J. Coale's table [Coale 1972, 53], the expectation of life at birth could be estimated at approximately 30 years. The expectation of life at birth calculated on the basis of the data drawn from FRFs for the generation born in 1712-1724 was 34.4 years.

A life table can be composed for 1783-1794, using the 1782 and 1795 revisions of souls and the parish registers available for these years. The underrecording of deaths in the period of 1783-1794 was insignificant. In 1783-1794, the average life expectancy at birth in Karuse was 28.6 years, at age 5 – 38.7 years, at age 15 – 33.6 years, at age 20 – 32.3 years, and at age 50 – 13.6 years. Of every 1,000 newborn infants, 784 reached their first birthday, 641 reached their fifth birthday, and 562 their 15th birthday (Table 38).

Nuptiality

The average number of marriages per year in 1686-1695 was 28.6, and 25.9 in 1696-1709, taking a sharp plunge after the plague epidemic: to 7.6 in 1713-1719 and 5.4 in 1720-1729. For the next three decades the annual average of marriages remained at about 15 (17.2 in 1730-1739, 16 in 1740-1749, and 14.7 in 1750-1759), subsequently rising to over twenty marriages per year (22.8 in 1760-1769 and 27.6 in 1790-1799).

As to the distribution of brides and bridegrooms by their place of residence, 12.2 per cent of all bridegrooms who were wed in Karuse in the period of 1686-1709 came from other parishes. Of the brides, only 1.2 per cent came from neighbouring parishes. It was a tradition to begin the wedding festivities in the house of the brides' parents, and the wedding ceremony was conducted in the church of the bride's (and her parents') home parish. In most cases the bride then moved to her husband's place of residence. In 1711-1749 the percentage of bridegrooms from other parishes reached 19.1 (3.2 in case of brides), and rose further in 1750-1799, to 21.2 (0.7 in case of brides). The percentage of marriages between partners from the same manor was 47.1 in 1686-1709, 38.0 in 1712-1749, and 41.5 in 1750-1799.

Seasonality

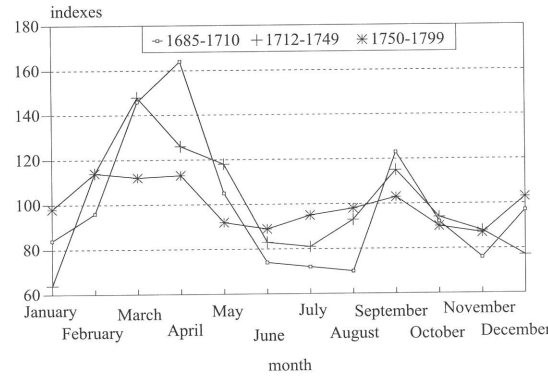
The seasonality of baptisms was not particularly marked. In the period of 1686-1709 the number of baptisms was bigger in November, December and January, as well as in May and June, yet very small in August and September. In the first half of the 18th century (1713-1749) the number of baptisms was higher in March, April, May, June, October and December, while in the second half of the century the season of baptisms lasted from November to May (Table 35).

In 1686-1709 the occurrence of deaths was higher in March, April and May, and lower in June, July, August and November. In the years 1713-1749 the number of deaths was bigger in February, March, April and May, and in the second half of the 18th century the mortality was higher in February, March, and April as well as in September and December (Table 35).

During the years 1686-1709 the marriage statistics in Karuse showed distinct seasonal fluctuation. The "marriage season" began in November and

Figure 14

Seasonality of burials in Karuse

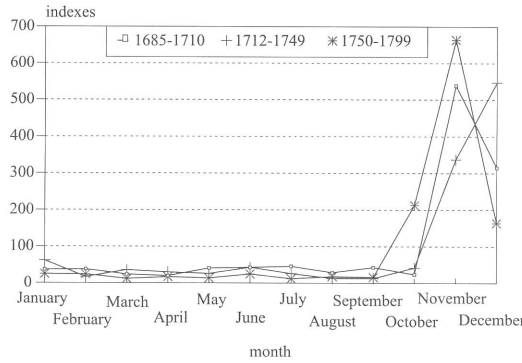


lasted for two months (November and December), during which more than two thirds of all the marriages of the year were contracted. In consequence very few couples (mostly non-farmers or widowed farmers remarrying) wed in spring and summer (Table 35).

In 1713-1749 the pattern remained generally the same, yet in the second half of the 18th century the picture somewhat changed: more than 80 per cent of the total annual marriages took place during October, November and December.

Figure 15

Seasonality of marriages in Karuse



Family reconstitution: Mean age at first marriage

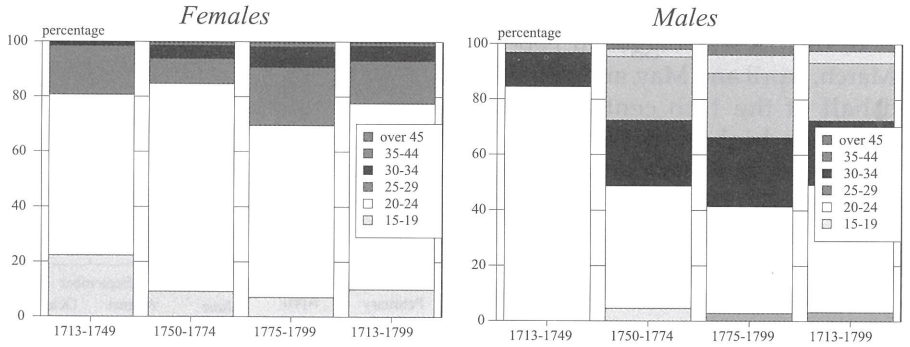
Since there is a gap in the parish registers of Karuse from 1710 to 1712, the family reconstitution (FR) was carried out primarily for the period of 1712-1799. Partial family reconstitution was performed for 1686-1710, and some FRFs from that period have been referred to.

The mean age at first marriage for women in Karuse was 21.7 years in 1713-1749, 22.8 in 1750-1774, and 24.3 in 1775-1799. The average for the whole period of 1713-1799 stood at 23.3 years of age. The mean age at first marriage for men was 22.9 in 1713-1749, 26.0 in 1750-1774, and 27.0 in 1775-1799. The average for the whole period of 1713-1799 stood at 26.4 years. Most women and men married between the ages of 20 and 25, while only a few males and females married younger than 18. In the last quarter of the 18th century the percentage of individuals who married for the first time in their thirties rose to 27.6 per cent in males, and to 7.1 per cent in females. In 1782, 3.5 per cent of the women aged 50 and above had never been married.

The growth of the mean age at first marriage in Karuse can be explained with the situation in the wake of the plague epidemic: throughout the period of 1713-1749, unsettled farms abounded and the peasant population that had survived the plague were able to take over the vacated farmsteads and cultivate the most fertile fields. The favourable economic situation thus encouraged founding a new family.

Figure 16

Age at first marriage in Karuse by age groups



Family reconstitution: Duration of marriage, and remarriage

As mortality in Karuse in the 18th century was relatively high, the marriages lasted for a shorter period. The duration of marriages in Karuse in 1712-1785 can be described as follows: 5.2 per cent of the marriages lasted less than one year, 14.7 per cent lasted for 1-4 years, and 15.3 per cent for 5-9 years (taking the combined percentage of marriages that lasted 0-9 years to 35.2); 10.4 per cent lasted for 10-14 years, 15.5 per cent for 15-19 years, and 37.9 per cent of marriages lasted 20 years or longer. The above statistics show that approximately half of the marriages were broken off while the wife was still in fertile age (Table 2). Widowers (widowed farmers in particular) remarried soon after the death of their wives: 40.8 per cent remarried within six months, 37.0 per cent within the next six months, and 18.5 per cent in the second year. Widows did not remarry that soon: 39.3 per cent of the widows remarried during the first year after their husbands' death, 25.0 per cent during the second year, and 10.7 per cent during the third and fourth years.

Figure 17

Duration of marriages in Karuse (marriages ended in 1712-1785)

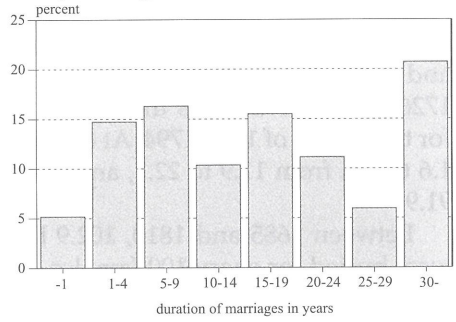


Table 2

Duration of marriages in Karuse (marriages ended in 1712-1785)

Duration of marriages in years	Marriages	
	Number	%
-1	13	5.2
1-4	37	14.7
5-9	41	16.3
10-14	26	10.4
15-19	39	15.5
20-24	28	11.2
25-29	15	6.0

Family reconstitution: Marital fertility

The number of baptisms per marriage in Karuse amounted to 4.29 in 1686-1710, 5.4 in 1712-1749, and 4.62 in 1750-1799 (Table 4). In the marriages concluded in the period of 1713-1760, the annual birth rate per one thousand married women (age-specific marital birth rate or marital fertility of wives) was 0.429 in the 20-24 age group, 0.390 in the 25-29 age group, 0.386 in the 30-34 age group, and 0.342 in the 35-39 age group (Table 47). Throughout the 18th century the marital fertility was declining gradually, but not markedly. The reasons for the decline are unclear. It is possible to calculate the general age-specific fertility for all women in Karuse for the period of 1760-1779 in the breakdown of age groups: 0.122 in the 20-24 age group; 0.260 in the 25-29 age group; 0.322 in the 30-34 age group; 0.307 in the 35-39 age group; 0.144 in the 40-44 age group, and 0.011 in the 45-49 age group. The general fertility was higher in the 30-39 age group owing to a higher proportion of married women in this category. The mean intervals between births were distributed as follows: 16.3 months from the wedding to the first birth, 28.6 months between the first and second births, and 30.8 months between the second and third births.

Table 3

Births per marriage in Karuse

Years	According to parish registers	Corrected
1685-1710	4.29	4.29
1712-1749	5.02	5.4
1750-1799	4.58	4.62
1712-1799	4.71	4.85

Palli, 1984, 119

Reproduction

The life table and the age-specific fertility table provide sufficient data to calculate the reproduction rates in Karuse. In 1783-1794 the gross reproduction rate for the village population was about 2.8, and the net reproduction rate was 1.4, standing at a little lower (1.3) for the total population of Karuse.

To sum up the findings, the mean population size in Karuse was 1,438 in 1726-1739, and 2,975 in 1780-1794, the figure for the latter period being 2.1 times higher than in 1726-1739. In 1726-1739 the annual birth rate was 53.5, and increased to 112.5 (2.1 times) for the period of 1780-1794. At the same time, the number of marriages per year increased 1.6 times, from 13.9 to 22.1, and the number of deaths increased 2.3 times, from 40.7 to 91.9.

Between 1685 and 1810, 102.9 boys were born for every 100 girls, and 108.8 males were buried for every 100 females.

It is possible to calculate the natural increase of the population as well as the birth, death and marriage rates for the period of 1726-1794.

Table 4

Crude birth, death and marriage rates in Karuse

Years	Births	Deaths	Natural increase	Marriages	Rates per thousand			
					Birth	Death	Growth	Marriage
1726-1739	749	570	179	194	37.2	28.2	8.9	9.7
1740-1749	860	518	342	159	51.7	31.2	20.5	9.6
1750-1759	824	635	189	149	44.0	34.1	9.9	8.0
1760-1769	885	504	381	228	39.2	24.0	15.2	10.9
1770-1779	1080	714	366	233	41.5	27.3	14.0	8.9
1780-1794	1688	1379	309	331	37.8	30.9	6.9	7.4

Palli 1984, 58

Spatial mobility

During the years 1712-1799, an estimated 1,000 persons moved to another manor within the parish of Karuse, 400 left the parish, and more than 600 came to Karuse from other parishes. Immigration prevailed in 1712-1750, emigration in 1751-1799 [Palli 1984].

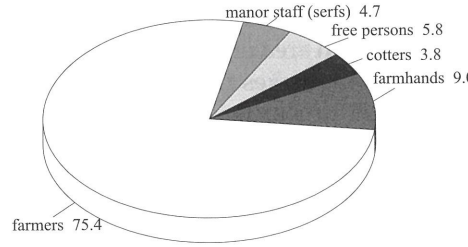
Social structure

The social structure in the parish of Karuse as recorded in 1782 was the following: 1.7 per cent of the population were classified as nobility and the clergy, 4.1 per cent were free artisans and manor officials, etc., 4.7 per cent were serfs serving in manors, while 75.4 per cent were made up by farmers and their kin, 9.6 per cent accounted for farmhands

and their kin, and 3.8 per cent for cotters. The serf population in villages constituted 88.8 per cent, and the manor population formed 10.5 per cent of the total population in the parish. The division of the village population into social strata is somewhat conditional. As stated above, the farms had to perform corvée, a duty delegated to the sons/daughters or younger brothers/sisters of the head of the farm, or to hired farmhands/maids. The soul revision lists sometimes recorded the sons/daughters and brothers/sisters of the head of the farm as farmhands/maids, and their actual position in the household could only be established through the FRFs. In the case of Karuse, the statistics of social strata and household types reckoned with the actual position of individuals.

Figure 18

Social structure of the population in Karuse in 1782 (per cent)



Household structure

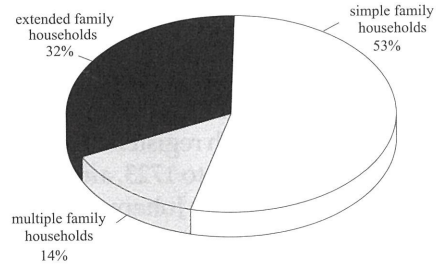
The mean household size (MHS) in Karuse as of 1686 was 6.1 persons, 6.4 persons in farmers' households. After the plague epidemic of 1710-1711, the MHS dropped to 5.7 in 1726, yet by 1739 climbed to 6.9, even higher than before the plague. According to the 1795 revision of souls, the MHS in Karuse stood at 8.0, and the MHS of farms at 8.5 (Table 31). These statistics, however, cover only the village population, while the MHS for manor population is unknown. The household structure is described according to P. Laslett's system [Laslett 1972, 31].

In the seventeenth and eighteenth centuries the enserfed peasant farmers had to render the equivalent of 3-12 man-days of labour a week to the manor – Estonia could thus be classified as an area with a highly developed corvée system. Farmers would often hire farmhands (and/or maids) to work in manor fields, and let them live on the farm (with families, if they had any). In 1782, 51.8 per cent of all farms in Karuse housed farmhands (with or without families) or maids.

In 1782, 53 per cent of the households in Karuse were simple family households, 32 per cent were multiple-family households, and 14 per cent were extended family households (Table 32). In 55.5 per cent of the cases, a married man was the head of the household, in 6.2 per cent of the cases, the household head was a widower, while only one per cent of household heads were single men, and 6.9 per cent were widows. In cotters' households, the percentage of widows in the position of a household head was higher, however. On peasant farms, widows held the position only temporarily – they either married soon, or else the eldest son took over the farm.

Figure 19

Household structure in Karuse in 1782



OTEPÄÄ 1716-1799

HISTORICAL OUTLINE

Otepää (*Odenpäh* G) was a parish in South-Eastern Estonia in the county of Tartumaa, occupying an area of 345 square kilometres. The region is hilly, with numerous small and medium-sized lakes and rivers and marshy valleys. Many fields were situated on hillsides. Compared to Karuse, the climate in Otepää is slightly more continental, with harder winters and warmer summers. The locals of Otepää spoke the South Estonian dialect, different from the dominating North Estonian dialect. The population of Otepää in 1881 amounted to 9,147 (including the market town of Nuustaku). The nearest town to Otepää was Tartu (43 km). In 1582-1625 Otepää was under the Polish rule, in 1625-1704 the parish was ruled by Sweden, and from 1704 de facto (from 1721 de iure) by Russia.

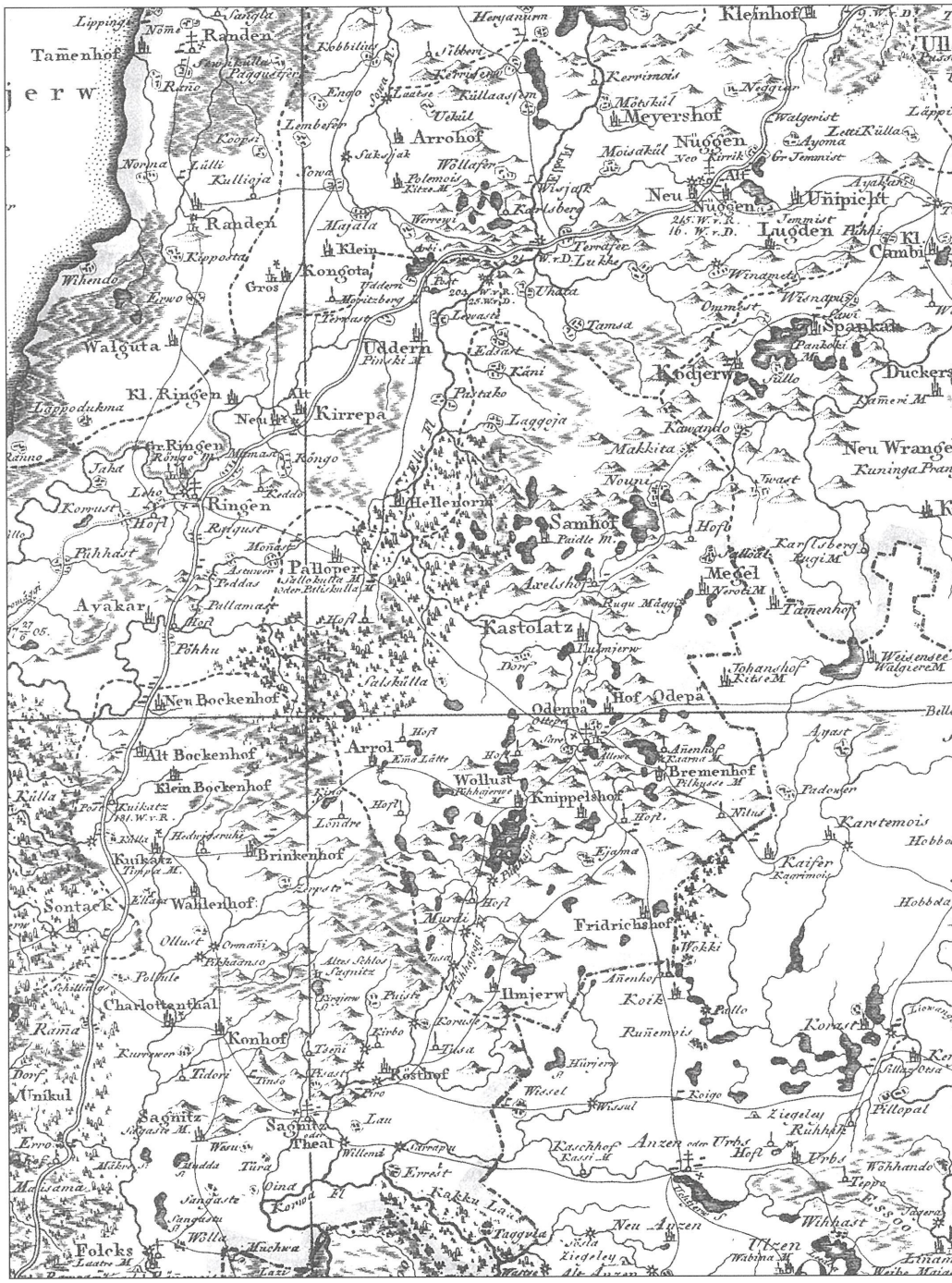
Regional division of the parish

The parish of Otepää contained the following manors and villages: the Arula manor (*Arrol* G) with four villages – Äidu, Koorvere, Meema and Vaela; Ilmjärve manor (*Ilmjerw* G) with one village, which was also called Ilmjärve (belonged to the manor of Otepää until 1747); Kastolatsi (*Kastolatz* or *Castolatz* G); the Otepää Parsonage with the village of Vaibse; Neeruti (*Megel* G) with the villages of Mäe and Võlja; Nüpli (*Knippelshof* G); Otepää (*Odenpeh* or *Odenpäh* G) with the villages of Aiaste, Nõuni, Saare, Otepää and Sirvaste; Palupera (*Palloper* G) with two villages – Salu and Saluala; Pilkuse (*Bremenhof* G) with the villages of Paduvere and Simuna; Päidla (*Samhof* G.) with four villages – Kõlli, Mõrtsuka, Päidla and Räpi; Pühajärve (*Wollust*, from 1838 on *Heiligensee* G) with five villages – Tautsi, Valluste, Vangi, Vööste and Krootuse; Vidrike (*Friedrichshof* G) with Ojamaa, Paina and a part of Paduvere. Until 1747 Vidrike belonged to the Pilkuse manorial estate. Of the villages belonging to the Pangodi (*Spankau* G) manor area, Etsaste, Kääni and Laguja were located in the Otepää parish, so was the Makita village of the Hellenurme (*Hellenorm* G) manor. The manor of Pangodi itself was situated in the Nõo (*Nüggen* G) parish, while Hellenurme lied within the parish of Rõngu (*Ringen* G).

Specification of data sources

The following sources were used to conduct studies on the population in Otepää in 1716-1799: parish registers (1716-1799), personal books from 1749 onwards, and the land revisions of 1721, 1723, 1731, 1744, 1751, and 1758.

In Otepää, parish registers were introduced by Pastor Johann Heinrich Grotjahn (served in Otepää from 1714 to 1723, after spending the years 1708-1714 exiled in Vologda, Russia). He was succeeded by Johann Christoph Clare (pastor in 1723-1743), and after an interval of three years, by Johann Friedrich Körber (1746-1748). Körber introduced the first personal book in 1747. Next came Johann Christoph Schmidt (1749-1775), and three pastors from the Hehn dynasty: Johann Martin Hehn (1776-1793), who in 1778 published a book of stories in Estonian, his sons Gustav Heinrich Hehn (1794-1801), and Bernhard Gottlieb Hehn (1801-1849).



The Otepää parish from "Atlas von Liefland" of L. A. Mellin 1789.

The parish registers contain entries of baptisms, burials and marriages. Baptism records had the following structure: date of baptism, date of birth, name of the infant, father's surname and name, mother's name, place of residence of the family (in most cases only the manor was mentioned, rarely the village), and godparents' names.

The burial entries gave the burial date, name of the deceased, his/her last place of residence, and his/her age. Entries for children and married women or widows recorded the name of the infant (wife, widow), father's (husband's) name with a comment (son, daughter, wife, widow of), omitting the date of death.

Marriage entries mentioned the names of the bridegroom and the bride, their respective places of residence before the marriage, and the wedding date.

Personal books were in essence descriptions of all the inhabitants of the parish. The personal books of Otepää described the parish population in the breakdown of farms, providing the name of each resident, his/her position on the farm (relationship to the head of the farm), the year of birth (or age), ability to read, knowledge of catechism, communion attendance (for adults), date or year of death. The books contained a large variety of notes concerning any changes in one's place of residence, "sins", personal qualities ("stupid"), etc. One book covered 10-15 years. The earlier books listed only adults, while comprehensive records (including all individuals) were not introduced until 1762. In most cases, the personal books did not register infant deaths, the name of the child was merely crossed out. It is possible, however, to track down the dates of death in FRFs created on the basis of parish registers

Specification of name recordings

The surnames in Otepää used to be even more unstable than in Karuse. Some individuals were recorded in parish registers and personal books under as many as four or five surnames, which largely complicates data checking and linkage of entries. However, the personal books providing additional information about the migration of families and individuals to other farms or manorial estates, the changes in surnames can be tracked down with certain accuracy.

Population

The parish of Otepää was relatively densely populated: the farms numbered 301 around 1688 [Liitoja-Tarkiainen 2000, 223], and 332 in 1765. In several manors, the number of farms did not change much between 1688 and 1765 but remained fairly steady (in 1688 the manor of Otepää comprised 89 farms, while the 1765 records list 85 farms; the Pilkuse manor had 43 farms in 1688 as well as in 1765; Päidla had 24 farms in 1688, and 23 in 1765; Nüpli had seven farms in 1688, and nine in 1765, etc.).

The population of Otepää was underestimated in the revision of 1688, which put the number of inhabitants in Päidla at 142, while the 1765 revision counted 430 people; the respective figures for Nüpli were 47 and 119. For some manors, no population data was made available, while in others merely the number of males was recorded (271 males in Otepää in 1688, and 685 males in 1765). Apparently cotters were not counted, and there was a major under-registration of children. Thus the 1688 revision recorded 100 adults and 42 children aged 0-14 years (29.6 per cent of the total population) in Päidla, and 114 adults and 33 children (21 per cent) in Palupera. The percentage of children of the total

population being estimably 35-40, the population estimate for Otepää as of 1688 is approximately 5,000.

In 1881 the Otepää parish posted a population of 7,000 (without the market town of Nuustaku), which by 1922 dropped to 6,636 (without the market town of Otepää, formerly Nuustaku). In 1765 the population of Otepää amounted to 6,000 (5,700 people living in villages), and in 1780 the total population was 6,600 (6,372 in villages), close to the statistics for 1881 and 1922.

The distribution of population by manors as of 1765 was as follows: Arula had 1,000 inhabitants, Otepää had 832, Pühajärve 834, Päidla 430, Ilmjärve 429, Palupera 382, Pangodi 380, Pilkuse 373, Nüpli 119, Neeruti 268, Vidrike 208, the Parsonage 168, Kastolatsi 158, and Makita 98 inhabitants. Some villages were relatively populous: Meema had 445 inhabitants, Ilmjärve had 429, Aiaste 285, Koorvere 262, Salu 251, Vangi 251, Paduvere 209, and Äidu 206 inhabitants. In most cases, however, villages were no more than groups of single farms (Table 26).

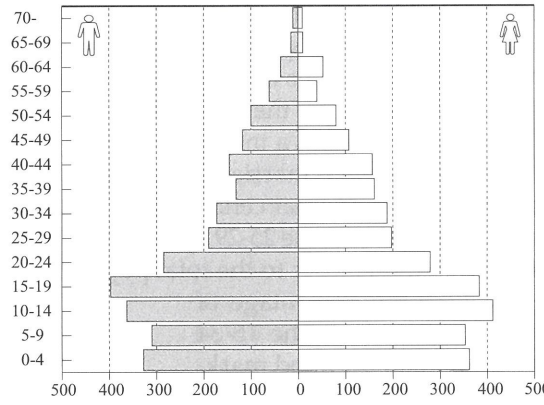
The mean population size in the Otepää parish was 3,800 in 1716-1719, 5,100 in 1730-1734, 5,500 in 1750-1754, 6,200 in 1765-1769, 6,700 in 1780-1784, and 6,300 in 1795-1799. As to the gender structure in the parish, males made up 49 per cent and females 51 per cent in 1731, the respective percentages for 1765 were 48.4 and 51.6, and for 1780 – 47.3 and 52.7, showing a slight predominance of females over males throughout the period.

Age structure

According to the 1731 land revision specification, children (0-14 years) formed 45 per cent of the total population of Otepää. By 1765 the share of children had dropped to 38.9, while adults of working age (15-59) made up 58.6, and individuals aged 60 and above – 2.5 per cent of the population. The age structure did not change much in the next fifteen years: in 1780 the percentage of children was 38.3, and that of the elderly – 3.3, leading to a conclusion that a slow ageing was taking place (Table 28).

Figure 20

Village population of Otepää by age and sex in 1765



Marital status

Estonian women living in Otepää predominantly married in their twenties, rarely at a younger age: in 1765 a mere 8.1 per cent of females in the 15-19 age group were married. The proportion of married women increased markedly in the next three age groups, standing at 54.1 per cent in the 20-24 age group, at 81.7 in the 25-29 age group, and at 86.7 in the 30-34 age group, stabilising in the 35-39 and 40-44 age groups (80.1 and 81.5 per cent respectively), and declining to 18.9 per cent in the 60-64 age group.

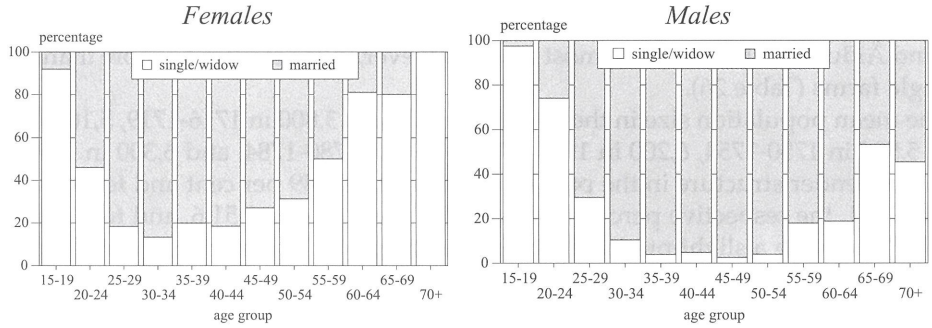
Males married at a more advanced age: in the 15-19 age group only 2.5 per cent of men were married, while in the 20-24 age group the percentage stood at 26. The share of

married men thereafter soared to 70.5 per cent in the 25-29 age group, and to 89.6 per cent in the 30-34 age group. In this particular age group the percentage of married men was almost equal to that of married women (86.7). In older age groups, however, married men clearly prevailed: in the 45-49 age group, 97.5 per cent of men were married as compared to 72.9 per cent in women, while the contrast became especially conspicuous in the 60-64 age group (81.1 and 18.9 per cent respectively) (Table 29).

In 1765 approximately 56 per cent of individuals aged 15 and above were married (34.4 per cent of the total population).

Figure 21

Marital status of the village population in Otepää in 1765



Considerable differences may be observed between the distinct social strata as to the percentage of married persons. Nuptiality was higher among farmers: 62.4 per cent of individuals aged 15 and above and belonging in this social group lived in wedlock (56.2 per cent of the total population of the parish). Farmers married earlier and the percentage of married individuals among farmers was in all age groups higher than the percentage of married persons in the total population (Table 29).

Cotters married at a more advanced age: in the 15-19 age group only 2.2 per cent of female cotters were married (as compared to 10.4 per cent in farmers). The respective indicators were 23.1 per cent and 62.3 per cent for the 20-24 age group, and 65.6 per cent and 87.4 per cent for the 25-29 age group. The percentage of married females in the stratum of farmhands is closer to the total population average in Otepää (Table 29).

By 1780 the percentage of married persons in the 15-34 age group had dropped markedly.

Table 5

Share of married persons in Otepää (per cent)

Age group	Males		Females	
	1765	1780	1765	1780
15–19	2.5	-	8.1	0.3
20–24	26.0	18.3	54.1	23.3
25–29	70.6	45.9	81.7	51.3
30–34	89.6	68.6	86.7	77.3

In all social strata, a decline in the proportion of married individuals in the 15-34 age group could be observed.

Table 6

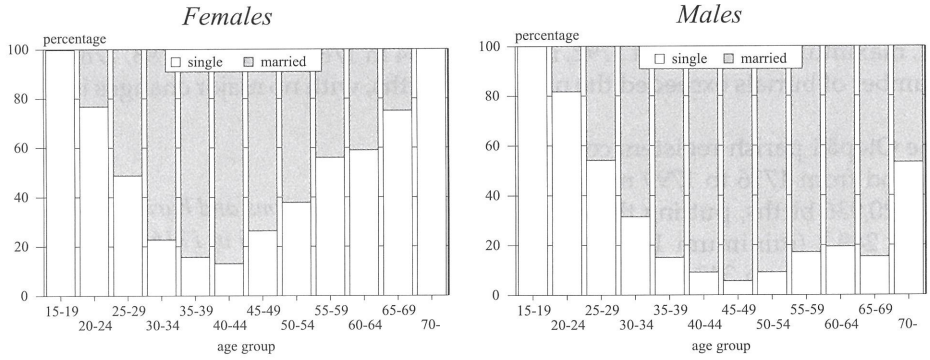
Share of married women in Otepää (per cent)

Age group	Total		Farmers		Cotters		Farmhands	
	1765	1780	1765	1780	1765	1780	1765	1780
15-19	8.1	0.3	10.4	0.5	2.2	0.0	15.8	0.0
20-24	54.1	23.3	62.3	28.5	23.1	9.5	45.8	11.1
25-29	81.7	51.3	87.4	61.0	65.6	27.6	82.3	37.5
30-34	86.7	77.3	88.9	84.6	74.2	63.3	90.0	71.4
35-39	80.1	84.4	89.2	90.2	60.5	60.6	57.1	33.3

As the population in 1780 was on the same level it was in the 1880s, there was evidence of certain population pressure: the economic conditions deteriorating, people adopted a habit of marrying later.

Figure 22

Marital status of the village population in Otepää in 1765

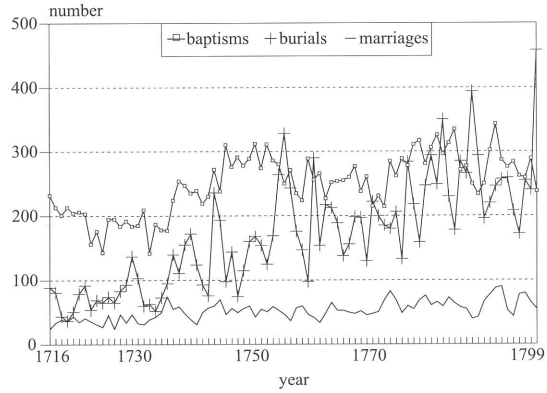


POPULATION PROCESSES

The Otepää parish suffered greatly during the hostilities of 1700-1708, but the 1710-1711 plague epidemic had a less devastating effect on Otepää than on many other parishes of Estonia. According to J. Kõpp [Kõpp, 1929], the plague claimed only 1,002 lives in the parish, which emerged from the epidemic with a relatively numerous population in 1712. Between 1720 and 1724, birth and marriage rates were fairly high and kept growing gradually.

Figure 23

Natural movement of the population in the Otepää parish in 1716-1799



Fertility

Based on the number of births it is possible to draw a distinction between the following time periods.

1716-1722: births were high – over 200 per year – the annual average standing at 210.3 (maximum 232 births in 1716, minimum 201 in 1718).

1723-1736: the number of birth declined to the annual average of 178.8 births (maximum 209 births in 1732, minimum 142 in 1733).

1737-1755: a new rise in the number of births (average 266.7, maximum 312 births in 1751 and minimum 219 in 1742).

1756-1773: another period of decline with the annual average of 248.6 births (maximum 289 births in 1760, minimum 214 in 1773). In 1756, 1761 and 1771 the number of deaths exceeded that of births.

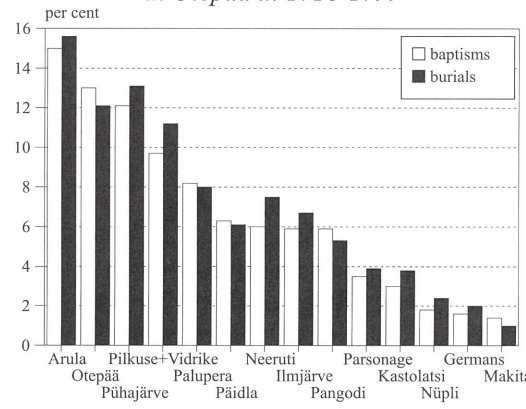
Followed a new period of growth when the mean soared to 299.9 births a year (maximum 343 births in 1785, minimum 262 in 1775). In 1777 and 1783, the number of deaths was higher than that of births.

The period of 1787-1799 at the end of the 18th century was very unstable (mean 273 births, maximum 343 births in 1792, minimum 234 in 1789). In 1786, 1788, 1789 and 1799 the number of burials exceeded the number of births, with no major changes in 1787 and 1797.

The Otepää parish registers covering the period from 1716 to 1799 recorded a total of 20,936 births, putting the annual mean at 249.3 (minimum 142 births in 1733, and maximum 343 births in 1792). Between the periods of 1720-1724 and 1780-1784, the average number of births per year grew 1.6 times, from 189 to 304.4.

Figure 24

Share of baptisms and burials by manors in Otepää in 1716-1799



Of all the infants baptised in the parish, 15 per cent came from the Arula manor, 13 per cent from Otepää, 12.1 per cent from Pühajärve, 9.7 per cent from Pilkuse and Vidrike combined, 8.2 per cent from Palupera, 6.3 per cent from Päidla, 6 per cent from Neeruti, 5.9 per cent from Ilmjärve, 5.9 per cent from Pangodi, 3.5 per cent from the Parsonage, 3 per cent from Kastolatsi, 1.8 per cent from Nüpli, 1.4 per cent from Makita; 1.5 per cent were "Germans" (free persons), and 6.6 per cent were children from other parishes, and children whose parents' place of residence was not mentioned.

Illegitimacy rates in Otepää were rather low: 281 illegitimate infants were born during the period of 1716-1774 (1.5 per cent of total births in 1716-1749, and 2.2 per cent of the total in 1750-1774). No exact figures are available for 1775-1799, as illegitimacy was not something to be readily admitted (Table 39). One hundred and five boys were born for every 100 girls, similarly, 105 males were buried for every 100 females.

Mortality

In the Otepää parish the registration of burials was sporadic until 1735, making it virtually impossible to establish the actual number of deaths that occurred before the said year. Between 1737 and 1755 the number of burials (deaths) remained relatively low, with 145.9 as the annual average (maximum 264 burials in 1755, minimum 75 burials in 1748), yet took an upward turn thereafter. Over the next period (1756-1779), the average number of burials per year amounted to 194.2 (maximum 328 burials in 1756 and minimum 98 burials in 1760). In 1756, 1761 and 1771, the number of burials exceeded that of births (328 and 250, 290 and 256, and 222 and 215 respectively). The next period (1780-1799) witnessed a rise in death rate, the mean number of burials per year reaching 264.6 (maximum 458 burials in 1799 and minimum 172 in 1796). In 1783, 1786, 1788, 1789, and 1799 the number of burials was higher than the number of births.

The Otepää parish registers recorded a total of 14,289 burials in 1716-1799, the largest number (458) reported in 1799, and smallest (37) in 1719. In the period of 1720-1724, the annual average of deaths stood at 69.0, in 1735-1739 at 114.8, and in 1785-1789 at 283.4 (respective growth 4.1 and 2.5 times). The parish registers for 1775-1779 provided the cause of death in 38.3 per cent of the cases, in 1780-1784, the cause of death was mentioned for 55.6 per cent of all burials. In 1775-1779, smallpox accounted for 15.3 per cent of death cases, followed dysentery (5.7 per cent) and pulmonary diseases (3.9 per cent). In 1780-1784 dysentery was responsible for 16.9 per cent of deaths, pulmonary diseases caused 7.8 per cent, and smallpox – 7.2 per cent of deaths.

The distribution of burials by location was the following: 15.6 per cent of all burials were recorded in Arula, 13.1 in Pühajärve, 12.1 in Otepää, 11.2 in Pilkuse and Vidrike combined, 8 in Palupera, 7.5 in Neeruti, 6.7 in Ilmjärve, 6.1 in Päidla, 5.3 in Pangodi, 3.9 in the Parsonage, 3.8 in Kastolatsi, 2.4 in Nüpli, 1 in Makita. Two per cent of the buried persons were "Germans", and 1.3 per cent were residents of other parishes.

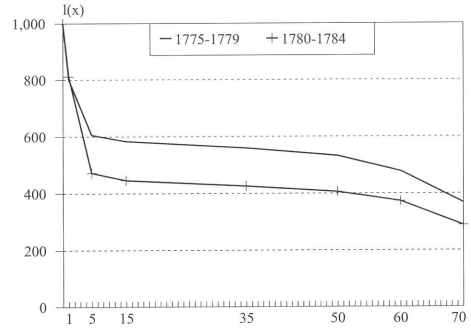
Personal books and parish registers are helpful in composing life tables for the population of Otepää in the 18th century – with the exception of two villages, Aiaste and Sirvaste, which formed an enclave within the territory of the Kanepi (*Kannepäh, Kannapäh* G) parish, as far as the majority of the deceased from these villages were buried in Kanepi.

Two tables were built for the population of Otepää, covering the periods of 1775-1779 and 1780-1784. The former period was favourable from the demographic point of view (during these years 1,457 infants were born, 1,000 persons were buried, and 302 couples married), while the latter seems relatively unfavourable (1,522 births, 1,417 burials, 260 marriages).

In 1775-1779 the expectation of life at birth was 41.6 years. Out of 1,000 newborn babies, 576 could expect to live to 20 years of age, when their life expectancy was 50.6 years. In 1780-1784 the expectation of life at birth was 32.8 years, and 438 out of 1,000 newborn infants lived to 20 years of age, when their life expectancy was 51.8 years (Table 38). The life expectation at birth in 1775-1784 was about 37 years. By 1897, Estonians' life expectation at birth had increased to 43.1 years.

Figure 25

Number of survivors in Otepää in 1775-1779 and 1780-1784



Nuptiality

The dynamics of marriages in the parish of Otepää can be divided into three periods: 1716-1734, 1735-1772 and 1773-1799. Throughout the first period the number of marriages remained relatively small (annual average 36.4, maximum 47 marriages in 1728 and 1730, and minimum 24 marriages in 1716 and 1727), growing in the second (mean 51.6, maximum 75 marriages in 1736 and minimum 31 marriages in 1741) and third periods (mean 64.7, maximum 90 marriages in 1793 and minimum 40 marriages in 1788). The mean number of marriages per year increased 1.8 times from 37.4 in 1720-1724 to 67.0 in 1780-1784 (Tables 34, 7).

A distinctive feature of marriages concluded in Otepää deserves mention: 18.6 per cent of bridegrooms wed in Otepää came from other parishes, while the percentage of brides living in other parishes did not exceed 5.9.

The mean birth rate in the Otepää parish between 1716 and 1799 was 42.3 per thousand, and the mean marriage rate stood at 9.2 per thousand (Table 36). The mean death rate in 1750-1799 was 35.1.

Table 7

Birth, death and marriage rates in Otepää (per thousand)

Years	Birth rate	Death rate	Marriage rate
1716–1719	56.5		8.75
1720–1729	42.7		8.4
1730–1739	38.2		9.2
1740–1749	45.8	23.5	9.1
1750–1759	48.8	34.5	9.3
1760–1769	42.2	29.5	8.0
1770–1779	41.6	30.0	9.4
1780–1789	43.8	42.2	9.0
1790–1799	43.6	39.1	10.9

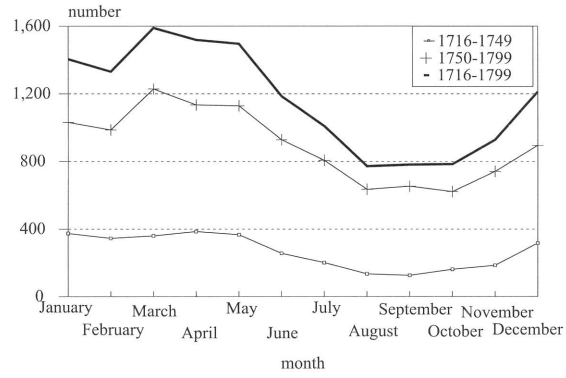
Seasonality

The seasonality of baptisms in Otepää is not particularly marked. In 1716-1749 the number of baptisms was highest in December and lowest in February. The season of baptisms lasted from September to January. In the second half of the 18th century the number of baptisms was highest in December and lowest in March (Table 35).

The occurrence of deaths in the period of 1716-1749 was higher from December to May, and lower from June to November (highest in April, lowest in September). In the second half of the 18th century the "season of deaths" lasted from January to June, with the highest death figures posted in March, and the lowest in October (Table 35). Such seasonality can be explained by the following factors: in winter peasants lived crowded on the farm, which facilitated the spread of infectious diseases; also the shortage of food, particularly in springtime, as well as the cold and unstable weather took their toll.

Figure 26

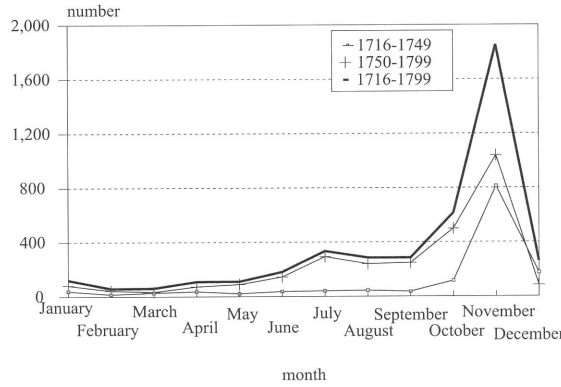
Seasonality of deaths (burials) in Otepää in 1716-1799 (Estonians)



During the years 1716-1749 the marriage statistics in Otepää showed distinct seasonal fluctuations. More than 70 per cent of the marriages contracted within a year took place in November and December, February being the most unpopular month. In 1750-1799 the marriage season included September, October and November (62.7 per cent of annual marriages), also higher than average rates were posted in July, while the number of marriages was lowest in March (Table 35).

Figure 27

Seasonality of marriages in Otepää in 1716-1799 (Estonians)



The seasonality of marriages was connected with the annual farming cycle: weddings were arranged after the harvest period, when there was more food available and peasants had more time to spare.

Family reconstitution: Mean age at first marriage

The mean age at first marriage in the Otepää parish in the period of 1725-1799 was 23.4 years for females, and 25.9 years for males. In 1725-1749 the mean age at first marriage for females was 21.5 years, in 1750-1774 – 22.8 years, and in 1775-1799 – 24.2 years, having thus increased by 2.7 years over the whole period.

Most women married for the first time between the ages of 20 and 24 (56.2 per cent in 1725-1749 and 58.5 per cent in 1750-1799). A mere 9.6 per cent of females married younger than 20 (30 per cent in 1725-1749, 14.3 per cent in 1750-1774, and 5.6 per cent in 1775-1799). In the 25-29 age group the percentage of females entering their first marriage was 21.4 in 1725-1749, 24.2 in 1750-1774, and 26.4 in 1775-1799. In the age group of 30-39 the percentage of women entering their first marriage was 2.7 in 1725-1749 and 9.7 in 1775-1799. Men married at a more advanced age than women, their mean age at first marriage being 23.2 years in 1725-1749 and 27.1 years in 1775-1799. Only 11.1 per cent of males married younger than 20 in the period of 1725-1749, and the percentage dropped to 1.5 in 1775-1799. In 1750-1774, 11.3 per cent of men were older than 30 at their first marriage, in 1775-1799 the respective percentage stood at 22.2.

The age gap between spouses at first marriage was under 5 years in most cases (59 per cent of all marriages). The husband was older in about three quarters of all marriages. In the second and third marriages the age gap between spouses was generally bigger than in the first marriage (in 45 per cent of second or third marriages the husband was 10-19 years older than his wife) (Table 40).

Table 8

Duration (in years) of marriages in Otepää (marriages in 1717-1750)

Duration (years)	Number	Per cent
Less than 1 year	34	3.0
1-4	120	10.6
5-9	144	12.7
10-14	180	15.9
15-19	190	16.8
20-24	108	9.5
25-29	140	12.4
30 and more	215	19.0
Total	1131	100.0

Palli, 1988, 146

Family reconstitution: Duration of marriage, remarriage

Since mortality was relatively high in Otepää, the duration of marriages in the 18th century was shorter than in the 19th century. The duration of marriages in Otepää in 1716-1799 can be described as follows: 3.1 per cent of marriages lasted less than one year, 23.7 per cent of marriages lasted 1-9 years, 31.5 per cent of marriages lasted 10-19 years, 10 per cent of marriages lasted 20-24 years, and 25 per cent of marriages lasted 25 years or longer. Thus about two thirds of all marriages were broken off while the wife was still in fertile age (Table 8).

Widowers remarried relatively soon after the death of their wives: two thirds within 1-9 months, 17.1 per cent within 10-19 months, and 16.2 per cent after 20 or more months, while five per cent of widowers did not marry again. Widows did not remarry that soon. Only 17 per cent of them remarried within nine months after they lost their husbands, and 27.3 per cent remarried within 10-19 months. One fifth of all widows did not marry again (Tables 9, 10).

The mean duration of widowhood was 12.4 months for widowers and 33.4 months for widows. Farmers remarried sooner after the partner's death than individuals in other social groups.

Figure 28

Duration (in years) of marriages in Otepää (marriages in 1717-1750)

Table 9

Duration of widowhood of widows in Otepää in 1716-1799

Months	Number	Per cent
0-9	30	17.0
10-19	48	27.3
20-29	34	19.3
30-49	28	15.9
50 and more	36	20.5
Total	176	100.0

Palli, 1988, 147

Table 10

Duration of widowhood of widowers in Otepää in 1716-1799

Months	Number	Per cent
Less than a month	2	0.7
1-4	84	29.4
5-9	78	27.3
10-14	28	9.8
15-19	14	4.9
20-29	36	12.6
30 and more	44	15.4
Total	286	100.0

Palli, 1988, 147

Family reconstitution: Marital fertility

Age-specific fertility

Fertility rates can be calculated, using various methods, either finding out the average number of births per marriage, or establishing the mean number of births per one year of marriage (age-specific marital fertility), drawing information from FRFs.

In Otepää the average number of baptisms per marriage in 1720-1799 was 4.71 (Table 12). The mean fertility for wives aged between 15 and 49 years was 0.356 (Tables 11, 37). The cohort of married females in the 15-19 age group was small, and their fertility relatively high. Most females married at the age of 20-24. Fertility was relatively high in this age group, declining somewhat in the thirties and in the 40-44 age group, and taking a sharp plunge in the 45-49 age group. A considerable number of females married at the age of 25-29, and their fertility characteristics followed the pattern manifest in the 20-24 age group. The number of females who married in their thirties was quite insignificant.

In the 18th century, the mean age of mother at last birth was 41.5 years (calculated solely for married women who died aged 55 and above), 34.4 per cent of mothers had their last child before the age of 40 (Table 13).

The mean intervals between births were the following: 13.6 months between the marriage and the first birth, 26.5 months between the first and second births, and 30.7 months between the second and third births. However, in case the previous child died within the first 8 months, the interval between births shortened considerably, dropping to 15-17 months (Table 14).

In Otepää the mean age at first marriage differed in the breakdown of social strata, standing lower for farmers and higher for cotters and farmhands. The population reproduction in Otepää predominantly depended on farmers, as far as the reproduction rate for cotters and farmhands remained below the net reproduction rate of 1, meaning that they were unable to reproduce themselves.

Table 11

Age-specific marital fertility rates in Otepää in 1716-1749 and 1750-1799

Age group	1716-1749	1750-1799	1716-1799
15-19	0.392	0.454	0.411
20-24	0.458	0.456	0.457
25-29	0.420	0.462	0.442
30-34	0.364	0.418	0.389
35-39	0.375	0.327	0.354
40-44	0.208	0.312	0.247
45-49	0.043	0.034	0.040
20-29	0.435	0.459	0.447
30-39	0.369	0.378	0.373
40-49	0.135	0.228	0.164

Palli, 1988, 149

Table 12

Births per marriage in Otepää in 1720-1799

Years	Births	Marriages	Births per marriage
1720-1729	1854	365	5.08
1730-1739	1987	480	4.14
1740-1749	2588	516	5.02
1750-1759	2732	522	5.23
1760-1769	2574	493	5.22
1770-1779	2663	599	4.45
1780-1789	2889	595	4.86
1790-1799	2790	698	4.00
1720-1799	20077	4268	4.70

Palli, 1988, 148

Table 13
Age of mothers at the birth of their last child in Otepää (marriages in 1724-1783)

Age of mothers	Number	Per cent
38	12	12.5
39	15	15.6
40	-	-
41	18	18.8
42	21	21.9
43	15	15.6
44	6	6.3
45	3	3.1
46	3	3.1
47	-	-
48	3	3.1
Total	96	100.0

Palli, 1988, 151

Table 14
Mean intervals between births (in months) in Otepää in 1716-1799 (previous child did not die at 0-8 months of age)

	1716-1749	1750-1799	1716-1799
Marriage => first child	13.7	13.6	13.6
1 => 2	26.2	26.8	26.5
2 => 3	29.7	31.6	30.7
3 => 4	30.7	31.0	30.8
4 => 5			32.0
5 => 6			32.8
6 => 7			34.9
7 => 8			34.8

Palli, 1988, 151

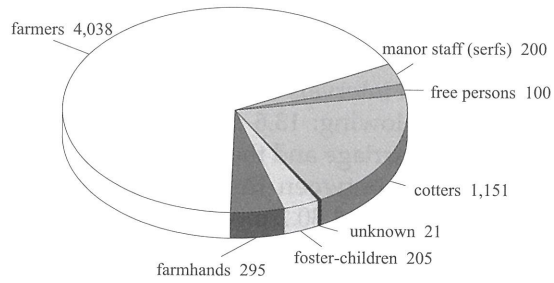
Spatial mobility

Migration in the Otepää parish in the period of 1772-1779 has been studied in great detail. During these years 208 individuals of the village population (97 males and 111 females) left Otepää (69 were sold, 11 were fugitives, 38 married to other parishes, while the rest were merely recorded as having gone away).

Social structure: Social strata and mobility

Personal books provide an insight into the social structure of the population. As stated above, in the 18th century Estonian peasants were serfs under obligation to perform corvée. Peasants also paid rent for their farmsteads (land), they had no right to buy or own land or to settle in other estates or towns without the manor lord's permission.

Figure 29
Social structure of the population in Otepää in 1765



As of 1765, about 1.7 per cent of the total population of the parish of Otepää were freemen (landlords, stewards, manor staff, artisans etc.), 3.3 per cent were serfs working at manors (servants, maids etc.), while village population made up 95 per cent of the total. The village population was divided into three strata: farmers (with their kin) accounted for 67.1 per cent, cotters formed 19.2 per cent, and farmhands/maids and their family members (if they had any) constituted 4.9 per cent of villagers. About 3.4 per cent of the total Otepää population were foster-children (orphans), who were mostly raised by farmer families and could thus be classified under the stratum of

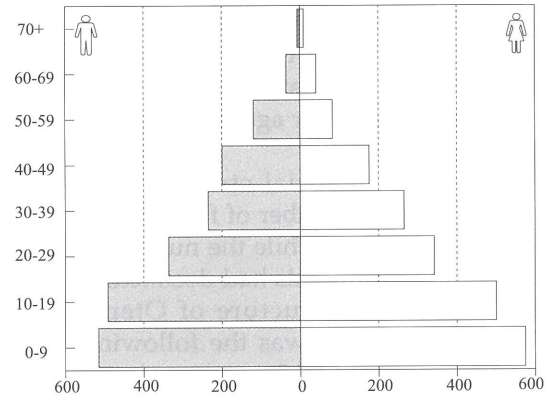
farmers, taking the share of the latter to 70.5 per cent. The social status of 0.4 per cent of the people was unknown or uncertain.

Of the village population, farmers made up 70.6 per cent, foster-children 3.6, cotters 20.2, and farmhands 5.2 per cent.

A look at the village population's age structure in the breakdown of strata helps understand the role of the different social groups in population reproduction. Farmers constituted the most stable stratum in village population, and it was predominantly this group that took care of population reproduction. Farmers made up about 70 per cent of the population in Otepää as of 1765, yet 82.8 per cent of all infants aged 0-4 years came under this stratum. The percentage of cotters and foster-children increased in older age groups, however: in the 0-4 age group, cotters formed 10.3 per cent and foster-children 1.7 per cent, in the 5-9 age group, the respective percentages were 16.3 and 2.1, and in the 10-14 age group – 23.7 and 8.4.

Figure 30

Social strata by age groups in Otepää in 1765, farmers



The above statistics in fact reflect the process of social mobility, which generally manifested the following pattern: one marriage partner (husband in most cases) died and the other was unable to maintain the previous social position in the stratum of farmers, thus assuming the status of a cotter with children/child. On occasion, especially when both parents died, the orphaned children were taken in as foster-children. In the 15-29 age group the percentage of farmhands increased while that of cotters dropped, as farmhands were predominantly young and many cotters were employed as farmhands/maids.

A reverse tendency could be observed in older age groups where the share of cotters increased and that of farmhands declined, farmhands (as well as some farmers) becoming cotters later in life. On the other hand, an insignificant number of cotters and farmhands also became farmers.

Considerable differences are revealed between the social strata of village population as to the age structure, proportion of married persons and the ability to read. Farmers formed the largest social stratum in Otepää in the 18th century. In 1765, 27 per cent of farmers belonged to the age group of 0-9 years, 24.6 per cent were in the 10-19 age group, 16.8 per cent in the 20-29 age group, etc. Their age pyramid was quite regular, minors (0-14 years) forming 39.2 per cent of the whole stratum, and individuals aged 60 and above accounting for 2.3 per cent.

The age structure of cotters was irregular. Children in the 0-9 age group made up only 12.7 per cent of cotters, while the largest age group was that of 10-19 years (31.9 per cent). The following two age groups (20-29 and 30-39 years) were relatively small, accounting for 12.4 and 9.9 per cent respectively, while 21.8 per cent of cotters belonged to the age group of 40-69 years (in farmers, the respective percentage was 16.2). Minors made up 31.5 per cent of cotters, and individuals aged 60 and above accounted for 3.7 per cent.

The group of farmhands and maids together with their family members displayed a deviant pattern: 19 per cent of them belonged to the 0-9 age group, 21.4 per cent were in

the age group of 10-19 years, 30.5 per cent in the 20-29 age group, and 14.6 per cent in the 30-39 age group. Followed a sharp decline – the 40-49 age group accounted for 4.7 per cent of the stratum, the age group of 50-59 years comprised one per cent, while no farmhands or maids were recorded in the older age groups (Table 43).

A survey of social strata in 1780 reveals that the number of farmers had grown since 1765, while the number of cotters and farmhands had declined. In 1780 the social structure of Otepää village population was the following: farmers made up 75.5 per cent, foster-children 3.5 per cent, cotters 17.1 per cent, and farmhands 3.1 per cent. Farmers and adopted children thus accounted for four fifths, and cotters and farmhands combined comprised one fifth of the village population, meaning that the share of lower social groups had diminished. Like in 1765, farmers in 1780 had a major role in population reproduction. Of the total village population, 75.5 per cent were farmers, yet children aged 0-9 years in farmer families made up 82.3 per cent. Cotters' and farmhands' children of 0-9 years comprised 14.6 per cent of minors in villages, cotters and farmhands forming 20.2 per cent of the total village population (Table 30).

Figure 31

Social strata by age groups in Otepää in 1765, cotters

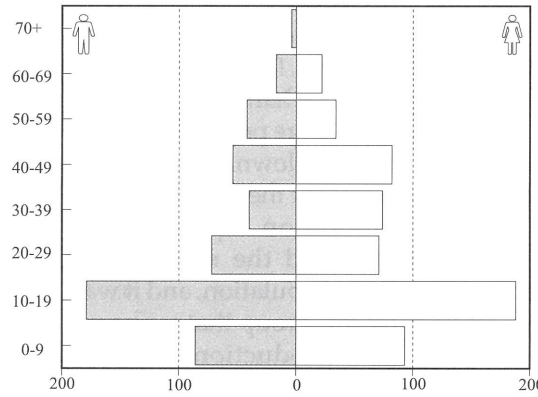


Figure 32

Social strata by age groups in Otepää in 1765, farmhands

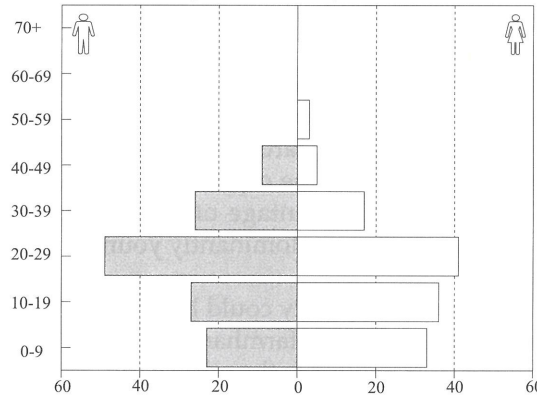


Figure 33

Social strata by age groups in Otepää in 1780, farmers

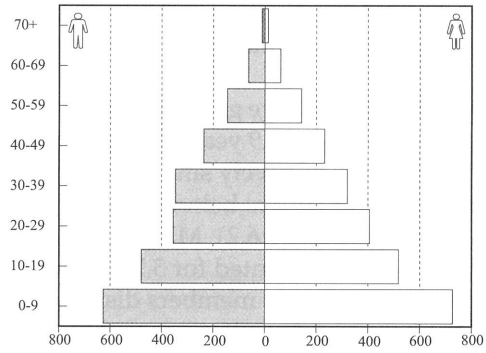
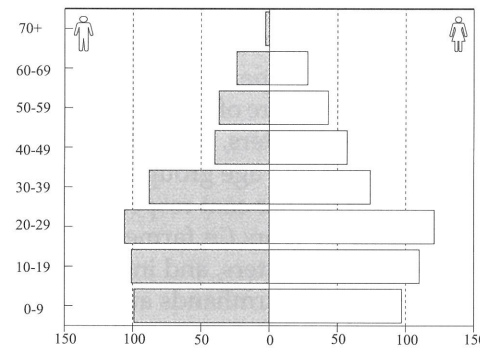


Figure 34

Social strata by age groups in Otepää in 1780, cotters



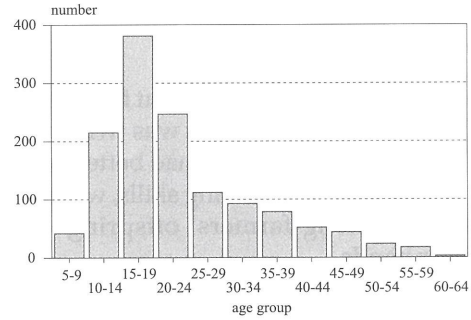
Ability to read

In the last decades of the 17th century the Swedish authorities established a network of peasant schools in Estonia. Literacy spreading among Estonian peasants, the authorities began to issue orders in the Estonian language; there is evidence of petitions written in Estonian. In 1708, Estonian parish clerk and schoolmaster Käsu Hans wrote a 32-verse elegy in Estonian about the destruction of the town of Tartu by Russian troops in the Great Northern War. After the war and plague, which paralysed school instruction, some village schools were re-opened in the 1720s.

The 1765 personal books provided detailed information about individuals' reading skills: knowledge of alphabet (mostly children), ability to spell (mostly children and young adults aged 15-24), and ability to read fluently.

Figure 35

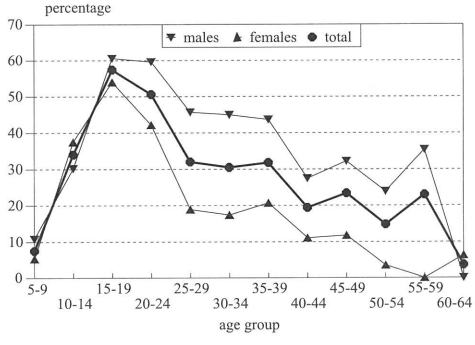
Ability to read in Otepää by age groups in 1765



As of 1765, 31.2 per cent of the village population aged 10 and above – 37.8 per cent of the male and 25 per cent of the female population – were able to read fluently. The population learned to read mostly in the age group of 10-19 years. In the 10-14 age group 4.4 per cent of the boys knew only letters of the alphabet, 19.8 per cent were able to spell, and 25.4 per cent were able to read fluently. In the group of males aged 15-19 years the respective percentages were 4.9, 9.1 and 50.9. In the 10-14 age group, 3.2 per cent of the girls knew the alphabet, 11.2 per cent were able to spell, and 29.6 per cent were able to read fluently. In the group of females aged 15-19 the respective percentages were 3.1, 8.1 and 46.7. In this particular age group the differences between young males and females as to their literacy skills were insignificant. In the age group of 20-24 years, 51.9 per cent of men and 35.5 per cent of women could read. In the combined age groups of 25-29, 30-34 and 35-39 years (25-39 years), about 39 per cent of the male and 16 per cent of the female population were able to read. The gap between males and females was big in this age group, and widened even further in the older age groups: in the 40-54 age group 25 per cent of men, yet only 6 per cent of women were able to read, while in the 55-59 age group 29.5 per cent of men, yet no women could read (Table 33).

Figure 36

Ability to read among farmers and their kin in Otepää in 1765



Reading skills also differed by social strata. As was stated above, as of 1765, 31.2 per cent of the village population aged 10 and above were able to read. The percentage was 36.3 among farmers, 19.2 among farmhands, and 18.8 among cotters. Of male farmers, 43.0 per cent were able to read, also 24.9 per cent of male cotters and 23.4 per cent of farmhands had obtained basic reading skills. The respective percentages among female farmers, female cotters and maids (girls in farmhand families) were 29.6, 13.6 and 14.7 (Table 33). Thus a

Figure 37

Ability to read among farmhands, maids and their kin in Otepää in 1765

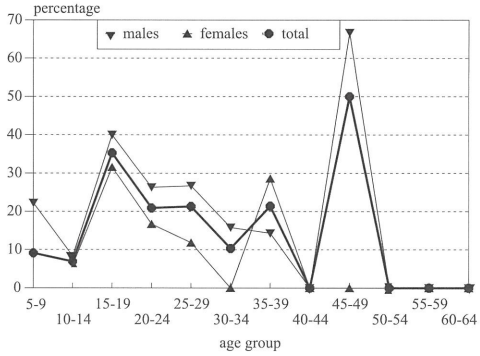
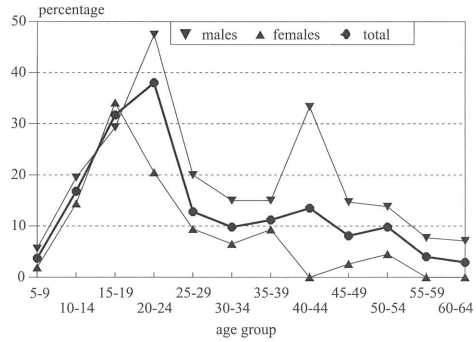


Figure 38

Ability to read among cotters and their kin in Otepää in 1765

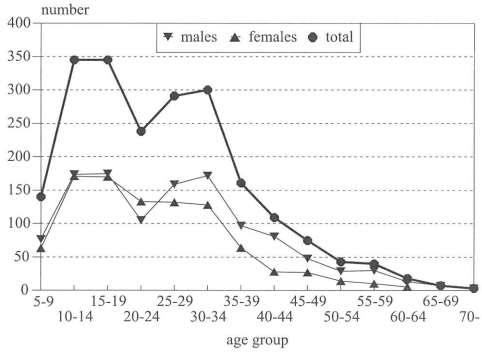


conclusion can be drawn that farmers were more "educated": the percentage of individuals with basic reading skills was twice as high for farmers as it was for cotters or farmhands. The children of farmers had better opportunities to attend school, and since their mothers, having acquired reading skills, were able to provide instruction at home, the "educational level" among farmers' offspring was higher than among the children of cotters or farmhands.

During the period of 1765-1780 the share of individuals who had obtained basic reading skills increased considerably. In 1780, 44.4 per cent of Otepää village people aged between 10 and 64 were able to read (compared with 31.2 per cent in 1765). The percentage stood at 39 among females (25 per cent in 1765), and at 50.3 among males (37.8 per cent in 1765). In the age group of 10-34 years, 51.7 per cent of the total village population could read, the respective percentage being 33.4 in the 35-54 age group, and 18 in the 55-69 age goup (Table 33).

Figure 39

Ability to read among age groups in Otepää in 1780



As of 1780 the percentage of individuals who could read exceeded the 1765 statistics in all social strata. In 1780, 48.6 per cent of farmers were able to read (compared with 36.3 per cent in 1765); the percentage was 54.6 among male farmers (43.0 in 1765), and 42.9 among female farmers (29.5 in 1765). The same year, 30.8 per cent of cotters (18.8 per cent in 1765) were recorded as possessing reading skills, the percentage coming to 36.7 among male cotters (24.9 in 1765), and to 25.8 among female cotters (13.6 in 1765). In the stratum of farmhands/maids, 36.3 per cent could read in 1780 (19.2 in 1765), the percentage standing at 39.7 among farmhands (23.4 in 1765), and at 32.8 among maids (14.7 in 1756). The ability to read had thus soared among female cotters, maids and farmhands' wives (Table 33).

On most farms one or several books of religious content were available (other literature was not mentioned in personal books). The Otepää parish was the local centre of the community of Moravian Brethren (Herrnhuters). Some of the ethnic Estonian members of the communion translated Herrnhutian literature from German into Estonian.

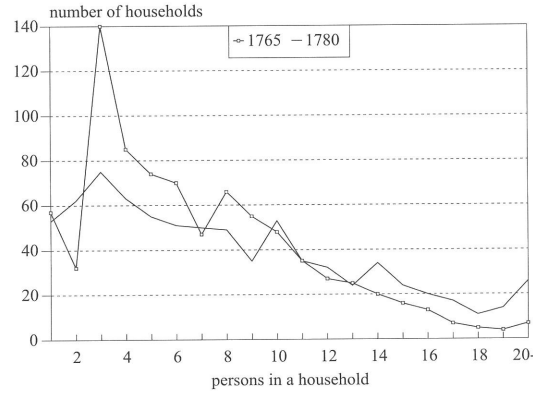
Household

Villages in the Otepää parish contained three types of households: those of farmers, co-partners and cotters. In the 18th century, co-partners' households were unknown in Northern Estonia and Saaremaa, where cotters used to live in a separate part of the village. In South Estonian mainland, however, one farm could contain two or more households (co-partners), with the majority of cotters living in the territory of farms. Some farmsteads in Otepää thus resembled small North Estonian villages.

Household size

Figure 40

Household size in Otepää in 1765 and 1780



In 1765 the mean household size (MHS) in the Otepää parish was 6.8 persons (a total of 833 households with 5,700 persons), in 1780 the mean household size was 8.1 (783 households with 6,376 persons). These figures cover only village population, the statistics for manor population being unavailable. As of 1765, households with 1-5 persons per household numbered 388 (46.6 per cent of all households), the number of individuals living in these households was 1,251 (22 per cent of the total village population). The number of households with 6-10 members in each amounted to 286 (34.4 per cent of all households), and 2,252 persons (39.5 per cent of the village population) lived in them. A total of 1,568 individuals (27.5 per cent of the village population) lived in 124 households of 11-15 members (14.9 per cent of total households). The number of households with 16 or more inhabitants in each stood at 36 (4.3 per cent of total households), the number of persons living in these households was 643 (11.3 per cent of the village population).

Household structure (by social groups)

In 1765, households in the villages of the Otepää parish totalled 833; of these, 180 were farmers' households (21.6 per cent), 305 were co-partners' households (36.6 per cent), and 348 were cotters' households (41.8 per cent). The number of individuals living in farmers' households was 1,944 (34.1 per cent of the village population), 2,611 individuals (45.8 per cent) lived in co-partners' households, and 1,151 individuals (20.1 per cent) in cotters' households. By 1780 the number of households had dropped to 783; of these 185 (23.6 per cent) were farmers' households, 278 (35.5 per cent) were co-partners' households, and 320 (40.9 per cent) were cotters' households. The number of individuals living in farmers' households stood at 2,239 (35.1 per cent of the village population), 2,960 individuals (46.4 per cent) lived in co-partners' households, and 1,177 individuals (18.5 per cent) in cotters' households.

The MHS for farmers' households was 10.8 in 1765 (12.1 in 1780). Most of the farmers'

households (66.2 per cent of households with 68.5 per cent of the farmer population) contained 7-14 individuals. The 305 co-partners' households contained a total of 2,960 inhabitants (MHS 10.6), 70.9 per cent of these households having 5-10 members. Persons living in these households made up 62.8 per cent of the co-partner population. Cotters' households (348 households in 1765 with 1,159 inhabitants) were small in size (MHS 3.3). Most cotters lived in 3-4 member households, but the number of smaller households with 1-2 members was also considerable (Table 31).

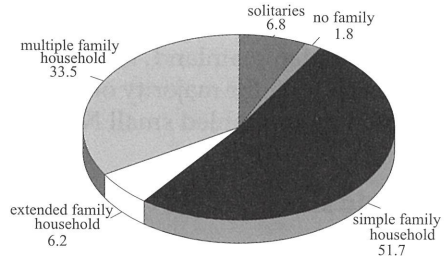
The household structure of the Otepää village population in 1765 was the following: 431 households (51.7 per cent) were simple family households made up of parents with children (354 households, or 42.1 per cent); 279 were multiple-family households containing mostly parents' family and the family/families of a child/children (135 or 16.2 per cent); 57 households (6.8 per cent), predominantly those of cotters, consisted of only one person; 6.2 per cent of all households were extended family households, and in 12 cases (1.4 per cent), the household was made up of cohabiting siblings (Table 32).

As of 1765, 121 farmers' households (67.2 per cent of total farmers' households) were multiple-family households, and 48 (16.7 per cent) were simple family households. Twenty-eight households (15.6 per cent) contained single farmhands or maids, 29 households (16.1 per cent) included farmhands with their families (Table 32). Of co-partners' households, 148 (48.5 per cent) were multiple-family households, 128 (42 per cent) were simple family households, and 27 (8.9 per cent) were extended family households. Forty-two households (13.8 per cent) included single farmhands or maids, and 32 households (10.5 per cent) contained farmhands with their families (Table 32).

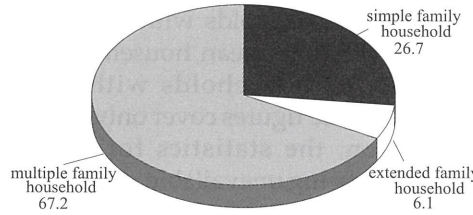
Figure 41

Household structure in Otepää in 1765:

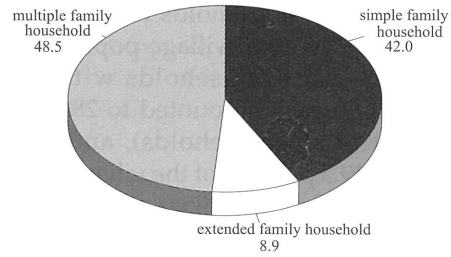
TOTAL:



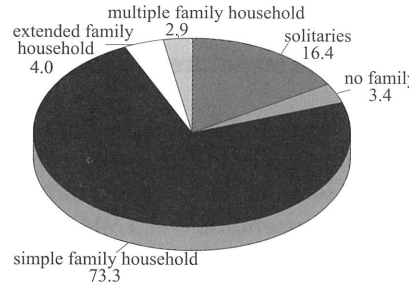
FARMERS:



CO-PARTNERS:



COTTERS:



Cotters' households were predominantly simple family households (255, or 73.3 per cent of total cotter cotters' households), 57 households (16.4 per cent) contained only one individual, 14 (4 per cent) were extended family households, and 10 (2.9 per cent) were multiple-family households (Table 32).

By 1780 the percentage of multiple-family households in the Otepää parish had increased to 45.9 from the 33.5 in 1765. In 1780 the percentage of simple family households

stood at 38 (compared to 51.7 in 1765). As of 1780, 141 farmers' households (76.2 per cent of total farmers' households) were multiple-family households, 28 (15.1 per cent) were simple family households. Fourteen households (7.6 per cent) contained single farmhands or maids, 15 households (8.1 per cent) included farmhands with their families. Co-partners' households numbered 278, of these 201 (72.3 per cent) were multiple-family households, 61 (21.9 per cent) were simple family households. Twenty co-partners' households contained farmhands or maids, and 18 households included farmhands with their families (Table 32).

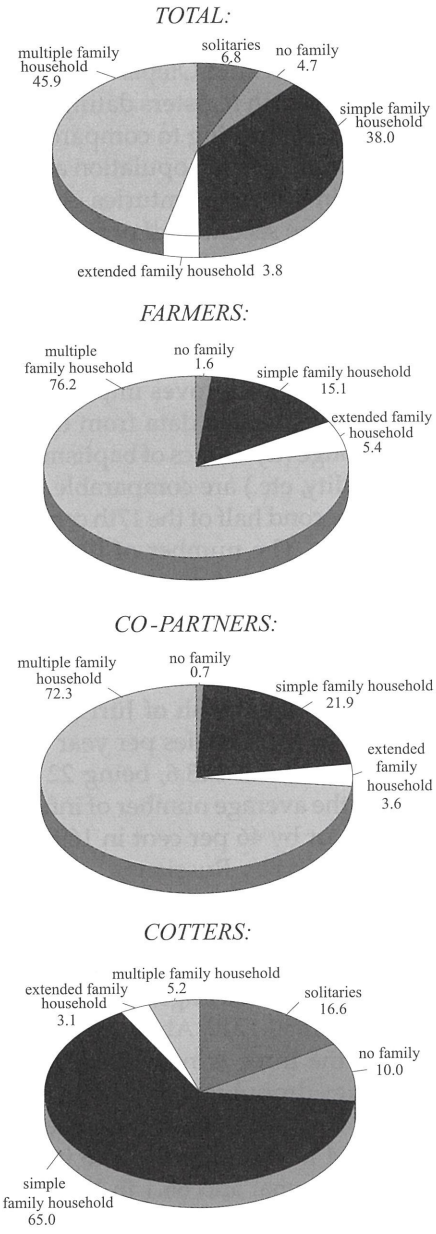
The structure of cotters' households differs considerably from that of farmers' and co-partners' households. In 1765, cotters' households in Otepää totalled 255, yet by 1780 their number had declined to 208. The percentage of simple family households had dropped from 73.3 to 65.0. The number of households consisting of cohabiting siblings was 30 (9.4 per cent) in 1780, a major increase from 12 households (3.4 per cent) in 1765. Multiple-family households amounted to 17 (5.2 per cent) in 1780, while in 1765 they numbered 10 (2.9 per cent). No cotters' household included any farmhands or maids (Table 32). As of 1780, the structure of cotters' households was much simpler than that of farmers' and co-partners' households.

The high population pressure in the Otepää parish in late 18th century had its impact on the MHS and household structure. The number of households declining, the households of farmers and co-partners grew larger. Younger sons and daughters or younger brothers and sisters of farmers and co-partners increasingly replaced farmhands and maids in corvée duties. On some farms, those of co-partners in particular, cotters were employed as farmhands to perform corvée for the farm in return for some land from the farm.

Personal books combined with FRFs provide information about heads of co-partners' households. They were often close relatives (father and son, brothers, etc.), though in most cases they need not be related at all. A member of a neighbouring farm could adopt the position of the head of a co-partner household. Co-partners' farmsteads also tended to be rather unstable, as they could be split up into two or more farmsteads. Occasionally, co-partners' farms were transformed into ordinary farms with a single head. The population pressure, decline in the number of households and farms led to an increase in the number of multiple-family households and the MHS [Palli 1988].

Figure 42

Household structure in Otepää in 1780:



SOME COMPARISONS

Rõuge, Karuse and Otepää are the only parishes in Estonia where family reconstitution based on parish registers dating from the 17th and 18th centuries has been carried out. It would be interesting to compare data pertaining to these parishes with the information available about the population and its natural movement in some other rural parishes of Estonia in the same centuries. As compared to earlier periods, demographic information covering the second half of the 17th century is quite rich, yet insufficient in comparison with the 18th and 19th century sources. The Rõuge parish register for the period of 1661-1696 is one of the most informative 17th century rural parish registers of Estonia, though of little value compared to the 18th-19th century sources, as it covers a relatively short period.

Since the parish register of Rõuge is the only one used for a 17th century family reconstitution, it proves impossible to compare marital fertility or age at first marriage with the respective data from other parishes in the same period. However, some facts from Rõuge (dynamics of baptisms or marriages, the mean number of births per marriage, seasonality, etc.) are comparable.

The second half of the 17th century witnessed a population growth in the rural parishes of Estonia. The number of births and marriages was growing also, yet the processes proceeded at a different pace in different regions: in the parishes, which suffered during the 1656-1658 Russian-Swedish war the population as well as the number of births and marriages grew more rapidly than in the parishes, which did not suffer or suffered very little through the war.

Thus in the parish of Jüri (*St. Jürgen* G), Harjumaa county in Northern Estonia, an average of 122.2 babies per year were born in the period of 1660-1664, in 1690-1694 this number stood at 148.6, being 22 per cent higher than in 1660-1664 [Palli 1996, 61]. In Rõuge, the average number of infants born in 1665-1669 was 214.8 per year, and increased to 314.2, or by 46 per cent in 1690-1694. Jüri did not suffer during the war, while Rõuge was occupied by Russians.

Also seasonality is comparable in several parishes. The seasonality of baptisms in Rõuge resembled the corresponding statistics in other rural parishes in Estonia in 1660-1710: the number of baptisms was highest in December and lowest in September. The seasonality of marriages in the rural parishes of Estonia was extremely marked in the period of 1650-1710. About two thirds to three quarters of all marriages were concluded during the three winter months – November, December and January, the number of weddings dropping very low in September. For example, in Halliste 65.8 per cent of all annual marriages were concluded in three winter months, the respective percentages were 61.4 in Viru-Nigula, 71.6 in Jüri, 71.7 in Kose, 76.4 in Lääne-Nigula, 82.1 in Keila, 82.5 in Kaarma, and 86.1 in Vändra [Palli 1996, 69]. The same applies to Rõuge, where more than two thirds of yearly marriages (72.1 per cent) were contracted in November and December, and only one thirtieth in August and September. It is not possible to compare the seasonality of deaths in Rõuge and in other parishes of Estonia in the 17th century, first decade of the 18th century. In Rõuge an overwhelming majority of children were buried in the village graveyards without proper recording in the parish register, while in most other rural parishes the share of children buried in churchyards was much bigger than in Rõuge. The seasonality of burials in Rõuge would thus cover the statistics for buried adults, or to be more exact – buried household heads only. All in all, any

conclusions drawn about the seasonality of deaths in Estonia based on the 17th century parish registers would be incorrect.

There is no information about the size and structure of households in Rõuge in the 17th century, as far as the only parish in Estonia with relevant records surviving is Vändra. However, certain facts are available about the farms of Rõuge as well, for example, the existence of co-partners' households in Rõuge in the 17th century [Palli 1973, 93; Liitoja-Tarkiainen 2000, 226-227]. Co-partners' farms were quite common in the Vändra parish as of 1683 [Palli 1974], and rather numerous in the parish of Otepää in the 17th century. There is strong evidence of co-partners' farms existing in many other parishes in the southern part of Estonia, South-Eastern Estonia in particular.

The crude birth rate in Rõuge for 1661-1696 was close to the crude birth rates in Karuse (39 per thousand), Vändra (38 per thousand), and Noarootsi (38 per thousand) [Palli 1996, 62-63]. In the 17th century, first decade of the 18th century, in broad outline 4.0-4.5 baptisms per marriage were registered in the rural parishes of Estonia (4.0 in Jüri, 4.28 in Harju-Jaani, 4.26 in Karuse, 4.69 in Suure-Jaani, 4.53 in Vändra, 4.96 in Sangaste-Laatre, 3.96 in Valjala, 4.32 in Rõuge; in the parishes populated with Swedes – 3.11 in Vormsi, 3.53 in Noarootsi). Accordingly, the population size and demographic processes in Rõuge had many features in common with the population processes in other rural parishes in the 17th century, bearing particular resemblance with the mainland parishes of Southern Estonia.

Research into the demographic situation in Karuse and Otepää in the 18th century was based on multiple sources: land revisions, revisions of souls and parish registers for Karuse, personal books, land revisions and parish registers for Otepää. The 1686-1689 Inquisition records and parish registers from 1685-1710 provide relatively comprehensive information about some manors in Karuse. The land revision of 1688, maps and description books dating from 1682-1709 give an overview of settlement in Otepää towards the end of the Swedish period. Since the personal books were more informative than the land revisions or revisions of souls, however, we know more about the population of Otepää in the 18th century than about the demographic issues in Karuse.

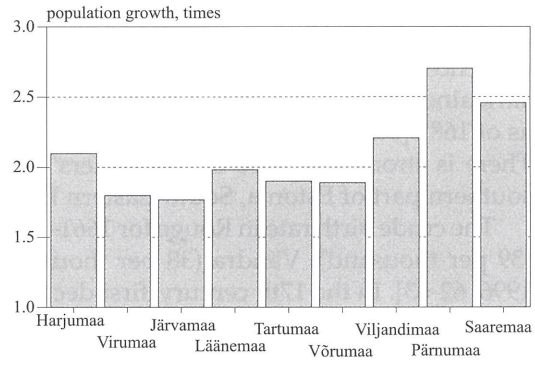
Between 1700 and 1711, the Estonian population was hit hard by the warfare of 1700-1710, famine in 1708-1709, and the 1710-1711 plague epidemic. The areas worst affected by the plague were Western and Northern Estonia, while South-Eastern Estonia and the islands of Hiiumaa and Vormsi suffered less. Karuse was among the parishes that suffered heavily, Otepää with its population losses not so severe belonged to the latter group.

The population in Karuse grew 3.33 times between 1712 and 1795, from 900 to 3,000 individuals, reaching the level of 1695 (3,000) by the end of the period. In Otepää the population growth was 1.76-fold, from 3,800 in 1716 to 6,700 in 1780. During the period of 1780-1799 the population of Otepää declined to 6,300, which was 1.25 times higher than the 5,000 posted in 1688. The population development in the 18th century thus followed different paths in Karuse and in Otepää.

It is possible to study the variations of population dynamics in the rural parishes of Estonia in 1732-1782, using the land revisions of 1731/1732 and the 1782 revision of souls. The land revisions of 1731/1732 covered the village population, while the 1782 revision of souls recorded the non-privileged population, which was about 5-10 per cent bigger than the village population. The rural population in Estonia doubled between 1732 and 1782, the increase being faster in Southern Estonia than in Northern Estonia (2.11 and 1.94 times respectively). Of counties, Pärnumaa experienced the biggest growth (2.7 times), while the lowest growth rate (1.77 times) was posted by Järvamaa.

Figure 43

Growth of village and non-privileged population between 1732 and 1782



At the parish level the differences in growth were more marked. For example, in 1782 the population of the parish of Reigi (*Roicks* G, the island of Hiiumaa in the Läänemaa county, Northern Estonia) was smaller than in 1732 (1,665 and 1,854 respectively), which can be explained by the fact that in 1781 about one thousand free Swedish peasants from the Reigi-Kõrgessaare area were forced to settle in Novorossiya, southern Russia (present-day Ukraine) by the ukase of Russian Empress Catherine the Great. In Kärla (*Kergel* G, island of Saaremaa) the population increased 4.05 times between 1732 and 1782 (from 1,579 people to 390). Kärla suffered very heavily from the plague epidemic in 1710-1711. The population growth in the parish of Karuse, Läänemaa county, was close to the county's average (2.15 times in Karuse, 2.04 in Läänemaa). Population increase in Otepää, which was located in the southern part of the county of Tartumaa, was lower than in the whole county (1.38 and 1.94 times respectively), where the population grew at a rather slow pace in the 18th century. The above population growth statistics for Otepää and Karuse pertain to total population, however, the growth was more rapid among the village population and non-privileged population in these two parishes (Figure 43).

Age structure studies were based on the 1782 revision of souls in Karuse, and on the Otepää personal books dating from 1765 and 1780. Any earlier information about the percentage of children in village population was available in land revision documents. At the county level the share of children (aged 0-14 years) in 1731/1732 was the following: 42.5 per cent in Harjumaa, 41.5 per cent in Virumaa, 44.5 per cent in Järvamaa, 43.9 per cent in Läänemaa. The average percentage for Northern Estonia stood at 42.9. In Tartumaa the percentage of minors of the total population amounted to 44.5, being 41.0 in Võrumaa, 40.5 in Viljandimaa, 47.0 in Pärnumaa, and 46.5 in Saaremaa. The South Estonian average was 43.3 per cent.

In 1782 the percentage of children (0-14 years) living in the Karuse parish amounted to 39.7, the 15-59 age group made up 54.8 per cent, and individuals aged 60 and above accounted for 5.5 per cent. The respective percentages for Otepää as of 1780 were 38.2, 58.3 and 3.5, indicating that the population age structure in Karuse was not dissimilar to that in Otepää. The biggest gap occurred in the oldest age group (60 years and above) – 5.5 and 3.5 per cent respectively. However, the deviation need not be adequate: the facts concerning individuals' age as recorded in personal books and checked by FRFs are more exact than the data derived from the revisions of souls, meaning that information about the population's age structure is more comprehensive for Otepää than it is for Karuse.

In eight rural parishes (Rakvere, Harju-Jaani, Järva-Madise, Kanepi, Vändra, Rannu, Püha, Karuse), according to the 1782 revision of souls, the age structure was the following: children made up 40.4 per cent, the 15-59 age group amounted to 54.3 per cent, and aged people (60 years and above) accounted for 7.3 per cent. The percentage of the elderly stood higher than in Karuse, probably owing to an over-registration of aged people [Palli 1997, 33-34]. These figures suggest that in 1732-1782 the share of children in the population of Estonia was slowly diminishing, the tendency manifesting itself in Karuse and Otepää also.

Information about the population's marital status by age groups in the 18th century is available for Karuse and Otepää only, which share common features in this respect. Very few individuals married younger than 20 years of age: as of 1782, in the parish of Karuse 0.8 per cent of males and 1.9 per cent of females, and in Otepää 2.5 per cent of males and 8.1 per cent of females, in 1780 only 0.3 per cent of females and no males married before the age of 20 years. The situation changed noticeably in the 20-24 and 25-29 age groups: in the 20-24 age group, 22.6 per cent of males and 28.3 per cent of females in Karuse were married. In Otepää as of 1765, 26.0 per cent of males and 54.1 per cent of females, and in 1780, 18.3 per cent of males and 23.3 per cent of females lived in wedlock. In the 25-29 age group, 60.5 per cent of males and 67.1 per cent of females in Karuse were married. In Otepää 70.5 per cent of males and 81.7 per cent of females were married according to the 1765 records, the respective percentages for 1780 being 45.9 and 51.3.

In Karuse the percentage of married individuals was highest among males in the age group of 40-44 (95.6 per cent) and females in the 35-39 age group (90.0 per cent). In Otepää as of 1765 the percentage of married individuals was highest in the 45-49 age group for males (98.9 per cent) and the 40-44 age group for females (91.7 per cent), the respective percentages dropping to 94.4 and 87.0 in 1780. Records from other parishes indicate also that Estonian peasants predominantly married in their twenties.

As regards the natural movement of the population, the following trends are observable. During the decades that followed the 1710-1711 plague epidemic, the number of births and marriages showed a rapid increase. In 1718 and 1722 only 42 infants were baptised in Karuse, the number dropping to 34 in 1728. In 1741, however, the number of baptised children reached 77, dropping to 55 in 1744, and soaring in 1749 to 109, a number not attained until 1770, when 110 baptisms were registered. In 1794 the number of baptisms reached 141, yet the maximums of 1687 (143 baptisms) and 1706 (151 baptisms) were not surpassed until the 19th century.

In the 18th century the population of Karuse failed to reach the annual maximum of marriages (47 in 1694) of the pre-plague period. In 1715-1728 the number of marriages stayed low, not exceeding 10 marriages a year (with the exception of 1723, when 13 marriages were concluded). Until 1762, the figure remained between 10 and 20 (exceptional years being 1747 with 20 marriages, 1759 with 27, and 1760 with 24 marriages), and in after years mostly between 20 and 38. The Karuse parish lost two thirds of its population to plague, the recovery was slow, and it was only at the beginning of the 19th century that the number of births and marriages reached the level of the late 17th century.

Birth statistics are comparable in the rural parishes of Estonia, where records are available for the periods of 1690-1694 and/or 1700-1704, as well as for 1725-1799. These parishes caught up with the 1690-1694 or 1700-1704 birth figures as late as in 1770-1774; in South Estonian parishes it happened sooner, in 1740-1744, yet in Northern Estonia not until 1774. In 1725-1729 the number of births stood at about half of the respective figure posted in the "Swedish time", rising to about 83 per cent in 1740-1744 [Palli 1980, 3, 21]. Thus the recovery process in Karuse was even slower than in Northern Estonia as a whole.

There are no parish registers available for Otepää before 1716, meaning there is no information of population's natural movement in the earlier period.

In 1716-1722 the annual number of births in Otepää exceeded 200, yet dropped below 200 in 1723-1736 (the only exception being 1732 with 209 births). In after years it rose above 200 again, soaring to 300 and even more in some years, reaching the maximum (343 births) in 1792.

In 1716-1734 the annual number of marriages in Otepää was between 24 and 47. Thereafter, in 1734-1773, the figure remained between 40 and 69, with some exceptions (75 marriages in 1736, 31 in 1741, 70 in 1745, and 34 in 1762); and in 1774-1799 mostly between 60 and 70 (exceptions: 83 marriages in 1774, 90 in 1793, and 40 in 1788).

The birth and death rates in Otepää were higher than in Karuse. However, the growth rate in Otepää was also higher than in Karuse, creating more favourable conditions for the natural population increase. In the late 18th century the population pressure built up in Otepää, wherefore an increasing amount of people were forced to leave the parish, either legally or illegally (some individuals were even sold out of the parish). In 1780-1799 the population of Otepää declined.

A comparison of the population's natural movement rates in Karuse and Otepää with the respective statistics for certain other parishes and Estonia as a whole indicates that as compared with 1720-1724, in 1780-1784 the number of births increased 2.5 times in the whole of Estonia, 2.6 times in Karuse, and 1.6 times in Otepää. Increase in the number of marriages was 2.5, 2.6 and 1.8 times respectively.

Throughout the period of 1740-1799 the birth rate for Estonia as a whole was somewhat lower than for Karuse and Otepää, the same applies to the death rate. A declining tendency could be observed in birth and death rates for both parishes and the nation as a whole, while marriage rates fluctuated over decades.

Figure 44

Growth of births and marriages between 1732 and 1782 in some rural parishes

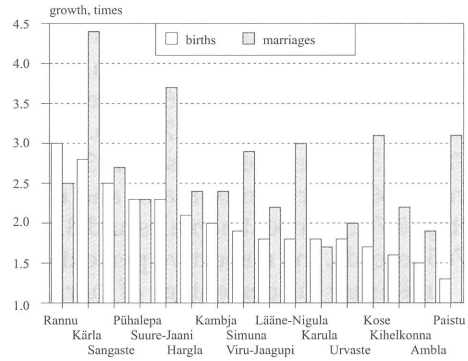


Table 15

Increase in births and marriages in 1780-1784 compared to 1720-1724 (times)

	Births	Marriages
Rannu	3.0	2.5
Kärla	2.8	4.4
Sangaste	2.5	2.7
Pühalepa	2.3	2.3
Suure-Jaani	2.3	3.7
Hargla	2.1	2.4
Kambja	2.0	2.4
Simuna	1.9	2.9
	Births	Marriages
Viru-Jaagupi	1.8	2.2
Lääne-Nigula	1.8	3.0
Karula	1.8	1.7
Urvaste	1.8	2.0
Kose	1.7	3.1
Kihelkonna	1.6	2.2
Ambla	1.5	1.9
Paistu	1.3	3.1

Table 16

Birth, death and marriage rates in Karuse, Otepää and Estonia

Years	Birth rate			Death rate			Marriage rate		
	Karuse	Otepää	Estonia	Karuse	Otepää	Estonia	Karuse	Otepää	Estonia
1740-1749	51.7	45.8	42.6	31.2	23.5	26.5	9.6	9.1	8.8
1750-1759	44.0	48.8	42.3	34.1	34.5	30.5	8.0	9.3	8.5
1760-1769	39.2	42.2	38.0	24.0	29.5	24.8	10.9	8.0	8.6
1770-1779	41.3	41.6	38.5	27.3	30.0	25.6	8.9	9.4	8.7

Seasonality was highly characteristic of Estonian peasants' marriages in the 17th and 18th centuries. Most of the marriages were concluded during three (November, December and January) or two (November and December, or December and January) months. In Karuse the sum of indexes for November and December over the period of 1685-1710 was 854 (the sum of monthly indexes for a year was 1,200), meaning that nearly three quarters of all the marriages in a year were concluded within these two months. The situation did not change much in 1712-1749, when the sum of indexes for November and December was 884. In 1750-1799, however, the number of marriages concluded in October increased substantially, and the "marriage season" lasted from October to December (sum of indexes 976).

Table 17

Sum of marriage indexes during the marriage season in some rural parishes of Estonia in the 18th century

Parish	Months	1711-1749 index	Months	1750-1797 index
Tarvastu	Nov,Dec,Jan	893	Nov	794
Kose	Nov,Dec,Jan	898	Nov,Dec	783
Harju-Jaani	Nov,Dec,Jan	860	Dec,Jan	760
Viru-Jaagupi	Dec,Jan,Feb	886	Dec,Jan	778
Väike-Maarja	Nov,Dec,Jan	906	Dec,Jan	704
Vändra	Nov,Dec	999	Nov,Dec,Jan	936
Lääne-Nigula	Nov,Dec	746	Nov,Dec	897
Mihkli	Nov,Dec	961	Nov,Dec	959
Rannu	Oct,Nov,Dec	869	Oct,Nov,Dec	754
Noarootsi	Nov,Dec	675	Nov,Dec	645
Keila	Nov,Dec,Jan	798	Nov,Dec	785
Haljala	Nov,Dec,Jan,Feb	854	Nov,Dec,Jan,Feb	780
Kärla	Nov,Dec	742	Nov	833
Kihelkonna	Nov,Dec	658	Nov	482
Sangaste-Laatre	Nov	751	Aug,Sep,Oct,Nov	868
Jüri	Nov,Dec,Jan	891	Nov,Dec	805

The Otepää "marriage season" in the period of 1716-1749 included November and December (sum of indexes 848), resembling the season in Karuse. In the second half of the 18th century the situation changed, the peak moving to September, October and November (sum of indexes 752), and the number of weddings growing in July as well (index 120). Thus in the second half of the 18th century the "season of marriages" shifted in both parishes: in Karuse the period included October, while in Otepää December was excluded and September and October were included. Throughout the period of 1712-1799 the marriage season in most rural parishes of Estonia lasted throughout November, December and January (the sum of indexes was 837 in 1712-1749 and 742 in 1750-1799). Until the 19th century it was not common for the season to extend to October and September. There were differences in the seasonality of marriages between parishes: in most parishes the season of marriages included November and December, or November, December and January, in some parishes just November (Sangaste-Laatre 1711-1749, Kärla 1750-1799), or December, January and February (Viru-Jaagupi 1711-1749). In the Kihelkonna fishing community, June was also a month of weddings. Hence a conclusion

can be drawn that the seasonality of marriages in Karuse, Otepää and other rural parishes of Estonia followed a rather uniform pattern in the 18th century.

Information about individuals' age at first marriage in the 17th and 18th centuries is available for three parishes – Rõuge, Karuse and Otepää – only. The records from Rõuge fail to produce a comprehensive picture of the statistics, however, merely indicating that in the period of 1661-1695, most females in this parish married in their twenties. The mean age at first marriage was quite similar in Karuse and Otepää in the 18th century: in Karuse the mean age at first marriage was 21.7 years for females and 22.9 for males in 1713-1749, and 23.5 and 26.5 years in 1750-1799, while in Otepää the respective ages were 21.5 and 23.2 years in 1725-1749, and 23.5 and 26.0 years in 1750-1799. Eighty-one per cent of females in Otepää and 83 per cent of females in Karuse entered their first marriage in their twenties. In the 19th century the mean age at first marriage of women living in the rural areas of Estonia was 23-24 years [Palli 1998, 24]. The age gap between partners at first marriage was less than five years in 59 per cent of couples.

The number of births per marriage gives a fairly general idea of population's fertility. In the 18th century the figure remained between approximately 3.28 and 5.78, the average standing at about 4.5. The average for Otepää in 1720-1799 amounted to 4.7 births per marriage, in Karuse the respective figure was 4.71.

The age-specific marital fertility rate in Karuse kept declining gradually but slowly throughout the 18th century. Over the period of 1713-1749, a woman in Karuse who married younger than 20, and stayed married until the age of 50, had an average of 9.0 children (her total legitimate fertility rate TLFR thus being 9.0). In the period of 1750-1759, the TLFR dropped to 8.7, and in 1760-1779 a further decline to 8.4 could be observed. In Otepää the TLFR for 1716-1749 stood at 9.4, and increased to 10.6 in 1750-1799, diverging from the tendency manifest in Karuse. Also the marital fertility in Otepää was higher than in Karuse.

Table 18

The number of baptisms (births) per marriage in some Estonian parishes

Parish	1713-1749	1750-1799
Viru-Nigula	4.36	4.2
Noarootsi	4.06	4.29
Sangaste-Laatre	4.77	4.09
Suure-Jaani	4.85	4.34
Kose	5.03	4.44
Kullamaa	3.62	3.28
Viru-Jaagupi	4.51	4.49
Rannu	4.01	4.46
Vändra	5.37	4.36
Tarvastu	4.43	4.25
Halliste	4.63	5.48
Kihelkonna	3.60	4.30
Väike-Maarja	3.54	4.14
Lääne-Nigula	4.36	4.53
Valjala		5.48
Vormsi	4.8	
Kärla	5.78	4.53
Ridala	4.49	4.02
Estonia 1780-1799		4.30

Palli 1980, 2, 50-51
Vahtre, 1966, 62

I_g is the internationally accepted index of marital fertility, comparing the number of live births of married women with the fertility schedules of the Hutterites (a highly fertile religious group not practising birth control). The Hutterites' rate set at 1, the I_g for Karuse was 0.82 in 1713-1749, and 0.77 in 1760-1779. The I_g for Otepää was 0.86 in 1716-1749, and 0.97 in 1750-1799.

Life tables can be compiled for the population of Karuse and Otepää in the 18th century. The population in these parishes being relatively small in size (3,000 in Karuse, 6,500 in

Otepää), the death rate and age structure, and hence the life tables were influenced by quite a few factors. Fluctuations in the death rate, infant death rate in particular, played a major role. It is possible to draw up real life tables for individuals who lived and died in the 18th century, but these may be difficult to interpret. In late 18th century the expectation of life at birth in Otepää was about 35 years, and slightly shorter in Karuse. In 1897 Estonians' expectation of life at birth was 43 years.

The mean household size and household structure in Karuse (Northern Estonia) differed from those prevalent in Otepää (Southern Estonia) in the 18th century. A typical farm in Northern Estonia had one head, while cotters, with only a few exceptions, lived in the so-called cotters' hamlets on the outskirts of villages. Two types of farms could be distinguished in South Estonian mainland – individual farms and co-partners' farms (two or more households on a farm with fields in separate use). Most cotters lived in the territory of farms, though there were exceptions – some cotters living on their own.

The corvée system was a major factor exerting considerable influence on the size and structure of farms and farmers' households. Some larger farms were obliged to send two persons to work on the manor daily, and were thus facing a problem of finding enough labour force to perform manor duties and suffice the farm's own needs. In case the family or families in the farmers' household (sons, daughters, younger brothers and sisters etc.) failed to provide enough workforce for corvée, the farmer had to hire farmhands/maids to work on the manor. These farmhands or maids (sometimes with their families) lived on the farm, sharing accommodation and meals with the family of the farmer. In Southern Estonia, on co-partners' farms in particular, cotters were occasionally employed as farmhands bartering corvée services for a plot of land from the farm. In Southern Estonia single farms abounded, some of them so populous that they could compare with small villages in Northern Estonia.

Since there is no adequate information (including of size and structure) available for the households of noblemen (landlords) and pastors, studies can be conducted on village population (farmers, cotters) only.

The mean household size (MHS) in Karuse and Otepää was steadily growing in the 18th century. In Karuse the MHS was 5.7 in 1726, 6.9 in 1739, and 8.0 in 1795 (8.5 in farmers' households as of 1795). In Otepää the MHS was 6.8 in 1765 and 8.1 in 1780. In Karuse 45.7 per cent of all households included farmhands or maids. In 1765, 31.7 per cent of farmers' households and 24.3 per cent of co-partners' households in Otepää included farmhands or maids (in some cases cotters employed as farmhands). In 1780 only 15.7 per cent of farmers' households and 13.7 per cent of co-partners' households contained farmhands/maids. The number of farms employing farmhands or maids thus declined, while the number of household members increased, with sons or brothers of household heads included in the households.

The study of household structure in Karuse can be based on the 1782 and 1795 revisions of souls, the principal sources for Otepää being the personal books dating from 1765 and 1780. The earlier personal books did not include minors, and cannot therefore serve as valid sources providing information about household structure. Among other factors, the distribution of households by their structure depends on the proportion of farmers' and cotters' households in the parish. As of 1795, households in Karuse totalled 358, of these 316 (88.3 per cent) were farmers' and 42 (12.7 per cent) were cotters' households. In Otepää households numbered 833 as of 1765, of these 180 (21.6 per cent) were farmers', 305 (36.6 per cent) were co-partners', and 348 (41.8 per cent) were cotters' households. In 1780 the total number of households in Otepää was 783, of these 185 (23.6 per cent) were

farmers', 278 (35.5 per cent) were co-partners', and 320 (40.9 per cent) were cotters' households. The percentage of cotters' households in Otepää was more than three times higher than in Karuse.

A closer look at the household structure in Otepää in 1765 reveals that the percentage of multiple-family households in this parish was 45.9, that of simple family households – 38.0. As to farmers' households, the distribution was the following: multiple-family households made up 67.2 per cent, and simple family households formed 26.7 per cent of all farmers' households. In co-partners' households, multiple-family households accounted for 48.5 per cent and simple family households made up 42.0 per cent. In cotters' households, simple family households formed 73.7 per cent, solitaries accounted for 16.4 per cent, extended family households made up 4.0 per cent, and multiple-family households – 2.9 per cent.

Obviously cotters' households had quite a different structure, besides, they were less stable than farmers' or co-partners' households. Among cotters there were more elderly people, widows with children, and cohabiting siblings. Cotters' households were often of temporary nature: single old cotters died, brothers-sisters lived together until some of them were hired as farmhands and the others married; at the same time new cotters' households were created, as aged farmhands or widows with children became cotters. Cotters' simple family households were less unstable. In some cases, the head of such a household was a blacksmith, weaver, etc.

Farmers' and co-partners' households were relatively stable, some of them having existed for centuries. However, the same cannot be said of the elements of these households, which displayed different degrees of stability. The most stable elements were the head of the household, his wife and their eldest son. Daughters got married and in most cases left their parents' household, also younger sons left home. Farmhands and maids were hired for one year or just for the the summer period. In the 18th century the landlord had the right to dispose of a farm (household) or resettle the family/families living there. On the other hand, stable farms able to fulfil the corvée duty and pay the rent were much too valuable for the manor and the landlord to lose them.

Cotters' households had a simpler structure. In parishes where cotters' households abounded, they had an impact on the general household pattern of the parish.

During the period of 1765-1780 the overall number of households declined in Otepää, yet the MHS as well as the percentage of multiple-family household increased – mostly among farmers' and co-partners', to a certain extent also among cotters' households, remaining, however relatively small among the latter (2.9 per cent in 1765 and 5.2 per cent in 1780). In 1765, out of the 431 simple households in Otepää, 255 (55.2 per cent) were cotters' households, while in 1780, out of the 297 simple family households, 208 (70.0 per cent) were cotters' households. Multiple-family households prevailed among farmers' and co-partners' households in Otepää both in 1765 and in 1780.

In Karuse simple family households dominated among farmers and cotters, the share of the latter being insignificant in the parish. In 1782, simple family households in Karuse made up 53.2 per cent, and multiple-family households accounted for 32 per cent of all the households, resembling the relevant statistics for Otepää as of 1765. However, in Karuse only 10 per cent of households were cotters' households, compared to 40 per cent in Otepää. In Karuse 40 per cent of farms had farmhands or maids, compared to 20 per cent in Otepää.

A conclusion can be drawn that the population of Karuse and Otepää in the 18th century had many features in common with the other rural parishes of Estonia, suggesting that also the mean age at first marriage, marital fertility and the expectation of life at birth were similar.

Table 19
Household structure in Otepää (1765) and in Karuse (1782)

Category*	Otepää	Karuse
1	6.9	0.8
2	1.4	-
3	51.7	53.2
4	6.2	14.0
5	33.5	32.0

* *See Laslett`s classification on page 103.*

SOME PARALLELS

The 17th century witnessed several demographic disasters in Europe, which considerably slowed down the population growth. The situation changed in the 18th century, and the population of Europe reached 180 million by 1800, a substantial increase from the 120 million as of 1700. In Estonia the famine of 1695-1697, the Great Northern War (1700-1721, on Estonian soil 1700-1710), the 1708-1709 famine, and the plague epidemic in 1710-1711 occasioned a precipitous population decline (from 400,000 in 1695 to about 170,000 in 1712). The 18th century was a period of recovery, and by 1800 the population of Estonia had reached 500,000, a figure 1.25 times higher than recorded in 1695.

However, the population growth was more marked in other countries: from 500,000 in 1700 to one million in 1800 in Finland, from 1.4 million in 1700 to 2.3 million in 1800 in Sweden, from 14 million to 20 million in Germany, and from 12.5 million to 37.2 million in Russia (the population in Russia grew not just due to natural increase but also as a result of the annexation of vast new territories).

In the 18th century the population in neighbouring territories grew faster than in Estonia (1695 taken as the starting point for Estonian statistics). As to Estonian parishes, the population of Karuse did not attain the level of 1695 until 1799. The population in Otepää amounted to approximately 5,000 as of 1695, and had increased 1.3 times by 1780. The population growth following the plague was realatively rapid in both parishes: in Karuse from 900 to 3,000 (3.3 times), in Otepää from 3,800 to 6,700 (1.8 times).

The most comprehensive information about the age structure of the population around 1750 is available for Sweden, thanks to the country's effective system for recording all individual demographic changes at parish level since late 17th century, which provides a chance to compare the share of children (0-14 years) in the population of rural Estonia and of Sweden. In 1731/1732 the percentage of children in Estonia's total village population was 43.1, standing at 38.9 in Otepää as of 1765, and at 36.9 in 1780; in Karuse the percentage as of 1782 amounted to 39.7. In Sweden the share of children was 33.2 per cent in 1750, and 32.3 per cent in 1800 [Hofsten, Lundström 1976, 85]; in England the percentage was 32.6 in 1701, 32.4 in 1751, and 36.4 in 1801 [Wrigley, Davies, Oeppen, Schofield 1997, 615]; in France, children formed 33.7 per cent of the population in 1776, and 32.4 per cent in 1791 [Bourgeois-Pichat 1965, 498]. The above statistics show that in the 18th century the population was much younger in Estonia than in Sweden. Estonia, France and Sweden displayed a similar tendency of children's share in total population declining. In England, on the other hand, the share of children increased during the period of 1751-1801 due to the industrial revolution. The share of children in Karuse (1782) and Otepää (1765 and 1780) was slightly smaller than in Estonia as a whole (1732).

It is possible to compare the marital status of the population in Karuse and Otepää and in Sweden. As

Table 20

Married females (per cent)

Age group	Otepää 1765	Otepää 1780	Karuse 1782	Sweden 1750
15-19	8.1	0.3	1.9	4.4
20-24	54.1	23.3	23.8	27.0
25-29	81.7	51.3	67.1	55.5
30-34	86.7	77.3	86.9	71.2
35-39	80.1	84.4	90.0	78.9
40-44	81.5	87.0	85.2	78.6
45-49	72.9	73.7	79.5	74.6

Sweden: Historisk statistik 1969, 70

far as population reproduction is concerned, a comparison of the marital status of females in the age groups between 15 and 49 years is of particular interest.

The comparison with Sweden indicates that women in Sweden married relatively late. The share of married females in Sweden as of 1750 is not dissimilar to the percentage of married females in Otepää in 1780 and in Karuse as of 1782. In the 35-49 age groups, however, the percentage of married females in Karuse and Otepää surpassed the respective percentage in Sweden.

The natural movement of population in Estonia in the 18th century can be compared with the demographic processes in Sweden, Finland, Denmark, England and France.

In Estonia the birth rate for the period of 1720-1799 was 39.6 per thousand, while the death rate in 1750-1799 stood at 29.1 per thousand. The birth rates for Karuse and Otepää slightly exceeded the Estonian average. In Sweden the birth rate was 33.6 and death rate came to 27.4 throughout 1751-1800; in Finland the birth and death rates in 1722-1749 were 37.4 and 26.4 respectively, and in 1751-1800 – 41.3 and 27.5 respectively (Tables 41, 44, 45) [Jutikkala 1945, 130]. In England the birth rate in 1701-1750 stood at 31.9 and death rate at 28.4, in 1751-1800 the respective percentages were 34.7 and 28.2; in France the birth and death rates were 40.1 and 37.8 respectively in 1740-1759, and 37.9 and 38.4 in 1760-1799; in Denmark the birth and death rates came to 31.0 and 28.4 in 1751-1800 [Wrigley, Davies, Oeppen, Schofield 1997, 614; Henry, Blayo 1975, 109; Heckscher 1949, 61]. The birth rate of the Orthodox population in Russia in the 18th century was 51.0, and the death rate 37.5 per thousand [Mironov 1999, 159].

Figure 45

Crude marriage, birth and death rates and natural increase in Estonia in 1715-1799

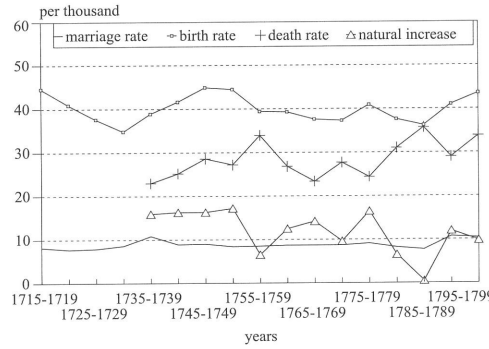


Figure 46

Crude birth and death rates in Finland

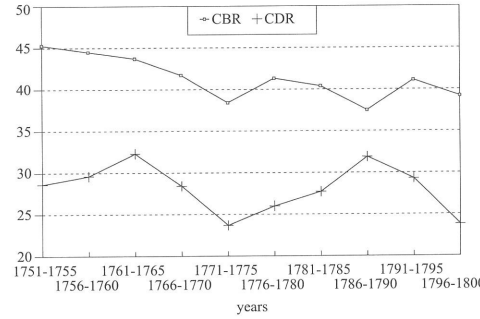
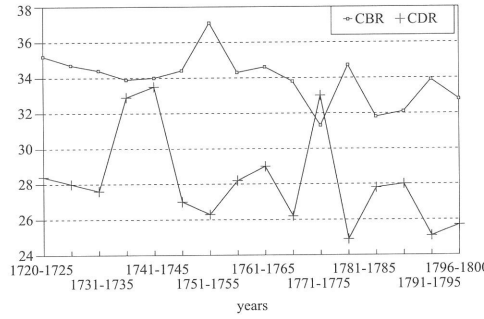


Figure 47

Crude birth and death rates in Sweden



The crude birth rate in Estonia was generally higher than in Western Europe, Finland posting even higher figures. The West European, Estonian and Finnish birth rates, however, were easily outmatched by Russia's respective statistics.

In the 17th and 18th centuries Estonian peasants married predominantly during three winter months – November, December and January (or in November-December or December-January).

This type of seasonality of marriages may have been common in large areas of Eastern Europe. The "marriage season" in Mikhailovskii (the Ryazan province, Central Russia)

in the last decades of the 18th and the first decade of the 19th century included autumn and winter months (December excluded). In the Central Volga region before 1917 two thirds of peasant marriages were concluded in January and February [Zorin 1976, 42]. In Serniki (Poland) the marriage season in the period of 1697-1865 covered November, January and February [Kowalczyk 1970, 194]. In Russia about three quarters of all marriages concluded in 1760-1780 took place in October-November and January-February [Mironov 1999, 170]. In Orthodox and Catholic countries weddings were not held in December, the period of Nativity Fast. In Western Europe there were two marriage seasons in the 17th and 18th centuries: one from November to February, and the other from May to July. [Gautier, Henry 1958, 64; Charbonneau 1970, 54; Corsini 1974, 141; Wrigley, Schofield 1981, 300].

Family reconstitution throws light upon the mean age at first marriage in the 18th century. In Otepää the mean age at first marriage in the 18th century was gradually increasing: from 21.5 years for women and 23.2 years for men in 1725-1749 to 24.2 years for women and 27.1 years for men in 1775-1799. Karuse displayed a similar tendency: in 1713-1749 the mean age at first marriage was 21.7 for women and 22.9 years for men, in 1775-1779 it was 24.3 years for women and 27.0 years for men. In West European countries the mean age at first marriage was usually higher than in Otepää and Karuse.

For example, in the period of 1651-1790, in Crulai (France) the mean age at first marriage for women was 25.1 years [Gautier, Henry 1958, 84], in 21 parishes of Bretagne and Anjou – 26.7 to 26.8 years [Blayo, Henry 1967, 119], in Glostrup (Denmark) – 26.8 years [Thestrup 1972, 24], in Tamerville (France) – 26.2 years [Wiel 1970, 141]. In England the mean age in marriages where both parties married for the first time was 26.7 years in 1725-1749, 26.0 years in 1750-1774, and 25.6 years in 1775-1799 [Wrigley, Davies, Oeppen, Schofield 1997, 149], the declining tendency, which was in direct contrast to the trend in Estonia, resulting from the onset of the industrial revolution. In Russia females' mean age at first marriage increased from 15-16 to 18-20 years over the period of 1780-1850. As of 1774, in Russia the minimum legal age for marriage for girls was 13 years [Mironov 1999, 167]. In the 18th century the mean age at first marriage in Estonia was thus closer to West European rather than Russian standards, and increased steadily only to stabilise in the 19th century.

In Estonia the share of illegitimate children was insignificant in the 17th and 18th centuries: 0.8 per cent of all newborn infants in Rõuge (1661-1696), 2.0 per cent in Karuse (1685-1799), and 1.3 per cent in Otepää (1716-1799) were born out of wedlock, the average for rural areas standing at about 2 per cent. The percentage of illegitimate children was low among the rural population in many European countries – 3.6 per cent in 24 parishes in England over the period of 1581-1810, 2.37 per cent in 9 districts in Sweden between 1751 and 1760, and 5.02 per cent in 1791-1800 [Laslett 1977, 11; Statistisk årsbok 1964, 47]. Illegitimacy rates being marginal, population reproduction was predominantly on the shoulders of married couples.

Information about marital fertility is provided by family reconstitution. As already stated, family reconstitution covering the 17th and 18th centuries has been completed for only three parishes of Estonia. Additionally, family reconstitution describing two Estonian parishes populated with Swedes (Vormsi, Noarootsi) as they were in the 19th century was carried out by H. Hyrenius, and the results were published in 1942.

The age-specific marital fertility rate was higher in Otepää than it was in Karuse, remaining more or less within the limits of European statistics dating from the same period. In the 18th century the reproduction of the population mostly depended on the marital fertility of married females in their twenties and thirties, also on the death rate. A

comparison of the marital fertility figures for Rõuge, Karuse and Otepää with the respective indicators from certain European countries or parishes reveals that marital fertility in Karuse, Rõuge and Otepää was close to the rates recorded in Scandinavian countries and in England. There is no evidence of deliberate family limitation (birth control) in Estonia in the 18th century. However, Vormsi and Noarootsi posting much lower marital fertility rates in the 19th century, it may be assumed that family limitation had begun to spread in these parishes. On the other hand, Vormsi and Noarootsi were inhabited by Swedes, whose demographic behaviour somewhat differed from that of Estonians, and the 19th century demographic situation in other Estonian parishes has not been studied exhaustively.

Since the birth and marrige rates in the other rural parishes of Estonia in the 18th century were not dissimilar to the statistics in Otepää or Karuse, it is reasonable to postulate that fertility in these parishes was also close to the Otepää and Karuse rates. However, certain differences between the parishes and parish groups could be observed also.

Table 21

Age-specific marital fertility in some parishes and countries

Parish or country	Years	Age group			
		20-24	25-29	30-34	35-39
Rõuge (Estonia)	1661-1696	0.385	0.412	0.358	
Otepää (Est.)	1716-1799	0.457	0.442	0.381	0.354
Karuse (Est.)	1713-1760	0.429	0.390	0.386	0.342
Vormsi (Est.)	1840-1900	0.300	0.307	0.262	0.214
Noarootsi (Est.)	1840-1891	0.342	0.320	0.277	0.247
Some rural parishes in Denmark	1760-1801	0.495	0.415	0.358	0.326
Heuchelheim (Germany)	1721-1750	0.379	0.346	0.273	0.169
	1751-1780	0.438	0.398	0.328	0.300
Sweden	1751-1800	0.458	0.379	0.326	0.227
England	1700-1724	0.415	0.385	0.319	0.236
	1725-1749	0.420	0.361	0.323	0.261
	1750-1774	0.416	0.367	0.313	0.248
	1775-1799	0.423	0.370	0.303	0.237

Palli 1973, 109; 1980 2, 104; 1996, 71; Hyrenius 1942, 192; Johansen 1975, 112; Imhof 1977, 82; Sundbärg 1907, 121; Wrigley, Davies, Oeppen, Schofield, 1997, 355

The I_g indexes for Karuse and Otepää were relatively high as well.

Table 22

I_g in some Estonian parishes

Parish	Years	Age group					
		20-24	25-29	30-34	35-39	40-44	45-49
Karuse	1713-1749	0.82	0.80	0.84	0.87	0.77	0.28
	1750-1759	0.80	0.77	0.85	0.84	0.76	0.26
	1760-1779	0.77	0.75	0.81	0.82	0.74	0.23
Otepää	1716-1749	0.83	0.84	0.81	0.92	0.94	0.70
	1750-1799	0.83	0.92	0.94	0.81	1.41	0.56
Noarootsi	1840-1841	0.62	0.58	0.50	0.45		

The high value of I_g is characteristic of periods preceding the demographic transition; for example, the index was high in pre-transition Germany and France: 0.77-0.80 in 14 German villages in the 18th century, and 0.70-0.86 in France (0.86 in North-East, 0.82 in North-West, 0.78 in South-East, and 0.70 in South-West) [Bardet, Dupaquier 1998, 135]. The mean age of mothers at the birth of their last child in 18th century Otepää was 41.5 years. In 13 English parishes the mean age at the last confinement was 39.0 years in 1700-1749, and 39.3 years in 1750-1799; in 14 German villages the mean age of mothers at last birth was 40.0 years in 1700-1749, and 40.3 years in 1750-1799; in France it was 39.0-40.4 years in 1670-1769 – all the examples originating from the pre-transition period [Bardet, Dupaquier 1998, 135].

The rural population in Estonia (Karuse and Otepää) did practise certain primitive forms of family limitation like delayed marriage, known in other countries as well. A delay of 2.5 years meant that the number of children declined by one. Also breast-feeding, which was widely believed to prevent pregnancy, was used as a birth control method in Estonia in the 18th century and afterwards. [Baer 1976, 31].

Women in Estonia reached the peak of fertility in their thirties, when the marital fertility was relatively high and most women lived in wedlock. The age-specific fertility of females in Karuse and Otepää was also highest in their thirties, particularly in the 30-34 age group. Expressed in I_f (the general fertility index – the fertility of all women, married and unmarried) the age-specific fertility was the following.

Table 23

Age-specific fertility

Parish, years	Age group				
	20-24	25-29	30-34	35-39	40-44
Karuse, marital fertility 1760-1779	0.421	0.378	0.361	0.333	0.165
Karuse, all women 1760-1779	0.122	0.260	0.322	0.307	0.144
Otepää, marital fertility 1750-1799	0.456	0.462	0.418	0.327	
Otepää, all women 1750-1799	0.172	0.336	0.363	0.281	

Table 24

I_f in Karuse and Otepää

Parish	Years	Age group				
		20-24	25-29	30-34	35-39	40-44
Karuse	1760-1779	0.22	0.52	0.72	0.76	0.65
Otepää	1750-1799	0.31	0.67	0.81	0.69	

The I_f in Noarootsi (1840-1891) was much lower than in Otepää and Karuse, referring to a possibility that the parish was undergoing demographic transition. In Karuse the total fertility rate (TFR) for women between 20 and 49 years of age was 8.97 in 1713-1749, 8.65 in 1750-1759, and 8.36 in 1760-1779; in Otepää it was 9.64 in 1716-1799. The I_g for TFR

in Karuse was 0.82, 0.79 and 0.76 during the respective periods, and 0.88 in Otepää. In Rõuge the I_g stood at 0.70 in the 20-24 age group, at 0.75 in the 25-29 age group, and at 0.65 in the 30-34 age group. These figures are considerably lower than in Karuse and Otepää.

In the rural areas of Estonia, household patterns in the 17th and 18th centuries varied according to the geographical and social position. In South Estonian mainland the MHS was higher and the structure of households more complicated than in Northern Estonia. More specifically, the MHS in farmers' and co-partners' households was higher than in cotters' households (mostly simple family households, also solitaries or no-family households). The farmers' and co-partners' households were often classified as multiple-family households (dominating in Southern Estonia), the type of household, which owed its existence to the corvée system. In Western Europe the MHS predominantly stood at 4-5 persons [Laslett 1972, 76], while the prevailing household type was the simple family household: 78 per cent of all households in Ealing as of 1599, and 76 per cent of all households in Longuenesse in 1778 were simple family households [Laslett 1972, 85].

A comparison of peasant households in Estonia and in the neighbouring countries (Latvia, Russia and Finland) reveals interesting information. The social conditions in 17th-18th century Latvia and Russia were similar to those prevalent in Estonia, where peasants were serfs and the corvée system was deeply rooted. In Kurland (*Kurzeme* L), Latvia, 23,747 farmsteads with an average of 15.1 serfs per farmstead were registered in 1791 [Plakans 1983, 175]. A. Plakans has described the structural types of 2,824 farmsteads: 50.4 per cent of them were simple family households, 31.8 per cent were multiple-family households, and 17.2 per cent were extended family households [Plakans 1983, 180].

As of 1814, in Mishino (Ryazan province, Central Russia) 74 per cent of the households were multiple-family households, 10.8 per cent were extended family households, and only 7.6 per cent were simple family households, the MHS standing at 9.1 [Czap 1983, 123, 128-129]. In the Sukhovarova estate, Tver province the MHS was 9.1, multiple-family households made up 76 per cent, and only 10.8 per cent were simple family households in 1816 [Czap 1983, 147]. Russia, however, was a vast territory. In the 18th century multiple-family households dominated in the central regions of the European part of Russia. In the Vologda province (Northern Russia) the simple family households made up 58.5 per cent in 1678 [Baklanova 1976, 32-33]; in Beryozovka, Western Siberia, 85 per cent of all households were simple family households in 1701, in Surgut their percentage came to 76 [Minenko 1971, 123].

In Hungary simple family households prevailed in the 18th century [Andorka, Faragó 1983, 293]. In 18th century Eastern Finland the structure of farms and households had many features similar to the structure of farms and households in Otepää and Rõuge. In Ruokolahti (Eastern Finland) the MHS was 7.9 in 1820.

Table 25
Household structure in Ruokolahti (per cent)

Type	1750	1775
1	1.2	5.8
2	1.4	1.6
3	30.7	30.9
4	11.0	13.0
5	45.7	48.7

Waris 1999, 45

Among non-farmers simple family households prevailed, accounting for 52.2 per cent in 1750 and 64.7 per cent in 1775. The multiple-family household type was commonest among farmers and co-partners (68.3 per cent in 1750, 67.8 per cent in 1775). The farms of co-partners made up 8.4 per cent of all farms in 1750, the percentage soaring to 27.7 by 1775 [Waris 1999, 44, 45, 53]. In Western Finland the structure of peasants' households was dissimilar, however, as there were no co-partners' households, and simple family household was

the dominant type. The structure of households and farms in Finland had features in common with Estonia. West Finland's patterns were similar to those prevalent in Northern Estonia, and the patterns typical of Eastern Finland resembled those of Southern Estonia. In the 17th and 18th centuries the MHS in Estonia (that of farms and co-partners' households in particular) was comparable to the MHS in Latvia, Russia and Finland, the same applies to the household structure.

The abundance of multiple-family households and the high MHS in Eastern Europe is explained by the corvée system, which necessitated the hiring of farmhands and maids to work for the manor. In Estonia the farmhands and maids lived on the farms, thus boosting the MHS.

As of 1780, in Otepää 44.5 per cent of the population aged 10 and above – half of the male population (50.3 per cent) and two fifths of the female population (39 per cent) – were able to read. Of children and young adults aged between 10 and 19 years, 59.5 per cent had acquired reading skills, which made them the most "educated" age group. Some books of religious content were available on almost all farms (other literature was not recorded in the personal books). The number of individuals possessing writing skills is not known, and though personal books contain remarks indicating that certain persons "write", the exact meaning of these comments is unclear.

Relying on information derived from church visitation lists, the lists of recruits and other records, L. Aarma has pointed out that at the end of the 18th century, 40 per cent of individuals in Northern Estonia, and 55 per cent of individuals in Southern Estonia had obtained basic reading skills [Aarma 1990]. These figures considerably surpass the literacy estimates for the Russian population. Estimates by B. Mironov indicate that as of 1797, five per cent of persons aged 10 years or above were able to read in Russia [Mironov 1989, 46]. Thus at the end of the 18th century, literacy level in Estonia was about 10 times higher than in Russia and close to the literacy statistics for the Protestant countries of Europe.

* * *

In the 17th and 18th centuries major disasters befell the population of Estonia. Rapid recovery, however, started in 1711, and population growth continued till the end of the 18th century, the population attaining the level of 1695 in 1760-1770, and exceeding it by one quarter in 1799.

In the 18th century the reproduction of the population proceeded in the traditional manner, following the pattern of the 17th century. The birth rate came to approximately 40 per thousand, and the death rate amounted to 25-30 per thousand in normal years. The marriage rate stood at about 8-9 per thousand. Most females got married in their twenties. The share of illegitimate children in rural areas was insignificant, about 2 per cent of all newborn infants. The expectation of life at birth was approximately 35 years. This traditional type of population reproduction was closer to the demographic developments in West European countries than in Russia.

GEOGRAPHICAL INDEX

INDEX OF PERSONS

naine – wife; poeg – son; tütar – daughter

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APPENDIX

Rural parishes in Estonia

KAART NR. 0709 LISANIMI OTSA ABIELU ALGUS- JA LÕPPDAATUMID 1719 12 06 / 1760 12 22 ABIELU KESTVUS 41

ABIELU SÕLMIMISE KOHT (KIHELKOND) Karuse ELUKOHT Saastna ja Poanse 1719 (21) – 1760 (77) KIHELKOND, MÕIS, KÜLA

	LISANIMI	NIMI	EMA NIMI	ELATUSALA ENNE ABIELU	ELATUSALA ABIELU AJAL
MEES	Otza	Jürri	Jahn		
NAINE	Koolme	Maddise	Anno		

	SÜNNIKOHT	ELUKOHT ENNE ABIELU	MITMES ABIELU	DAATUM SÜNNI	DAATUM SURMA	VANUS SURRES	VANUS ABIELLUMISEL	ABIELU LÕPUL	UUE ABIELU SÕLMIMINE DAATUM	UUE ABIELU SÕLMIMINE LESEPÕLVE PIKKUS	UUE ABIELU SÕLMIMINE UUE ABIKAASA LISANIMI JA NIMI
MEES	Sa Poanse	Sa Poanse		1694 03 11	1760 12 22	66	25				
NAINE	Sa Pagga	Matsalu Mäe		1701 05 30	1777 03 05	75	18	59			

VANUSE RÜHM	ELATUD AASTAID	SÜNDINUD LAPSI	EMA VANUS	ABIELU AASTA	VAHE AEG
15 - 19	1,5	1	19	1	14
20 - 24	5	2	22	3	17
25 - 29	5	2	24	6	30
30 - 34	5	2	26	8	26
35 - 39	5	2	29	10	29
40 - 44	5	1	30	12	15
45 - 49	5		33	15	34
50 -			36	17	32
ABIELU-AASTAD			39	21	40
0 - 4	5 *	2	43	25	48
5 - 9	5	2			
10 - 14	5	2			
15 - 19	5	2			
20 - 24	5	1			
25 - 29	5	1			
30 - 34					

LAPSI: POISSE 6, TÜDRUKUID 4, ? , KOKKU 10

	MITMES	SUGU	NIMI	SÜNNI-DAATUM	SURMA-DAATUM	VANUS	ABIELU DAATUM	VANUS	ABIKAASA LISANIMI JA NIMI	
L	1	m	Henrich	1721 02 19			1744 11 24	23	Pawelle - Jaani Anno	1018
	2	m	Jaak	1723 07 14			1762 12 01	39	Kaupme Mihkle Ann	1306
A	3	m	Jürri	1726 01 30			1769 11 22	43	Helmo Toma Jaeni Reet	1473
	4	n	Madde	1728 04 18			1749 12 03	21	Pawelle Jaako Andrusse Michkel	1098
P	5	m	Adam	1730 10 09	1730 10 11	0.0.2				
	6	m	Jaan	1732 02 03	1745 03 12	13				
S	7	n	Lieso	1734 12 12			1765 11 27	31	Polli Marti Juhkam	1366
	8	m	Mart	1737 08 21			1765 12 04	28	Helmo Thoma Jaeni Liso	1378
E	9	n	Anno	1741 01 10			1763 11 02	22	Sompi Ado Jaen	1320
	10	n	Eed	1745 01 19	1747 04 06	2				
D										

FRF

Table 26

Population in Karuse in 1739 and in Otepää in 1765

Parish/ manor	Village	Population			Number of households in parishes
		Males	Females	Total	
Karuse, 1739		**623**	**621**	**1244**	**178**
	Matsalu	227	226	453	64
	Meelva	50	51	101	15
	Laulepa	29	29	58	8
	Petaaluse	63	63	126	18
	Mäe	41	38	79	9
	Võigaste	29	33	62	10
	Paga	15	12	27	4
Piivarootsi	Piivarootsi	20	22	47	7
Vatla		58	64	122	20
	Nurmsi	36	49	85	13
	Kairi	22	15	37	7
Nehatu	Total	63	70	133	20
	Oeküla	24	24	48	7
	Lõo	10	20	30	5
	Virita	14	14	28	4
	Single farms	15(2***)	12	27	4
Tuudi	Tapuste	21(1***)	18(1***)	39	7
Parsonage	Kinksi	9	10	19	3
Saastna		103	91	194	24
	Metsküla	30	31	61	8
	Järise	32	22	54	7
	Poanse	41	38	79	9
Illuste		33	29	62	9
	Hõbesalu	14	11	25	3
	Muriste	11	9	20	3
	Muste	6	7	13	2
	Villika	2	2	4	1
Paadrema	Tuhu	9	10	19	3
Mõtsu	Torgu	10	12	22	3
Lihula		67	67	134	18
	Peanse	13	12	25	3
	Sausa	10	8	18	2
	Vagivere	20	21	41	6
	Pajumaa	24	26	50	7
Otepää, 1765		**2760**	**2940**	**5700**	**332**
Arula		490	531	1021	39
	Meema	211	234	445	18
	Koorvere	126	136	262	10
	Vaela	42	48	90	2
	Äidu	100	106	206	9
	Cotters	11	7	18	

Parish/ manor	Village	Population			Number of households in parishes
		Males	Females	Total	
Ilmjärve		209	220	429	26
	Ilmjärve	189	203	392	26
	Cotters	20	17	37	
Kastolatsi		80	78	158	9
	Farms	72	66	138	9
	Cotters	8	12	20	
Parsonage		83	85	168	10
	Vaibse	66	74	140	10
	Cotters	17	11	28	
Neeruti		129	139	268	20 (3*)
	Võlja	43	49	92	10 (2*)
	Mäeküla	57	65	122	10 (1*)
	Cotters	29	25	54	
Nüpli	Single farms	63	56	119	9
Otepää		416	416	832	54 (2*)
	Aiaste	131	129	260	18 (2*)
	Cotters in Aiaste	10	15	25	
	Nõuni	136	117	253	19
	Cotters in Nõuni	9	5	14	
	Otepää	41	51	92	5
	Saare	18	29	47	2
	Sirvaste	61	55	116	10
	Cotters in Sirvaste	10	15	25	
Palupera	Total	181	201	382	32
	Salu	120	131	251	21
	Cotters in Salu	22	26	48	
	Saluala	39	44	83	11
Pangodi		178	202	380	22
	Laguja	92	93	185	9
	Etsaste	61	85	146	9
	Kääni	25	24	49	4
Pilkuse		162	211	373	27 (1**)
	Paduvere	91	118	209	16
	Simuna	57	78	135	11 (1**)
	Cotters	14	15	29	
Päidla		219	211	430	23
	Päidla	68	66	134	6
	Kõlli	22	23	45	2
	Räpi	46	31	77	5
	Mõrtsuka	61	71	132	10
	Cotters	22	20	42	
Pühajärve		397	437	834	40 (1*)
	Krootuse	61	72	133	8
	Tautsi	15	15	30	4
	Cotters in Tautsi	35	37	72	

Parish/ manor	Village	Population			Number of households in parishes
		Males	Females	Total	
	Valluste	86	91	177	12 (1*)
	Cotters in Vallustes	25	24	49	
	Vangi	116	135	251	11
	Vööste	59	63	122	5
Vidrike		104	104	208	16
	Ojamaa	62	60	122	9
	Paina	37	42	79	7
	Cotters	5	2	7	
Hellenurme	Makita	49	49	98	5

* Unsettled

** Land united with manors' own fields

*** Persons from other manors including 5 children whose sex distribution is unknown

Table 27

Population in Karuse in 1782

Manor	Serfs			Free persons			Total			Farms	Cotters' households
	Males	Females	Total	Males	Females	Total	Males	Females	Total		
1	2	3	4	5	6	7	8	9	10	11	12
Matsalu	335	325	660	14	9	23	349	334	683	63	22
Saastna	223	235	458	-	-	-	223	235	458	50	5
Vatla	194	194	388	23	8	31	217	202	419	47	4
Nehatu	157	159	316	6	9	15	163	168	331	39	-
Lihula	101	107	208	-	-	-	101	107	208	27	-
Kiska	42	40	82	5	5	10	47	45	92	9	-
Illuste	87	88	175	-	-	-	87	88	175	22	6
Piivarootsi	45	51	96	6	5	11	51	56	107	14	-
Tuudi	92	105	197	8	8	16	100	113	213	22	-
Paadrema	53	53	106	-	-	-	53	53	106	12	-
Parsonage	32	23	55	12	11	23	44	34	78	5	-
Total	1361	1380	2741	74	55	129	1435	1435	2870	310	37

Table 28

Age structure: Karuse 1782, Otepää 1765, 1780

Age group	Total		
	Males	Females	Total
Karuse, 1782			
0-4	166	185	351
5-9	150	149	299
10-14	152	135	287
15-19	124	103	227
20-24	94	114	208
25-29	80	84	164
30-34	79	107	186
35-39	86	80	166
40-44	45	53	98
45-49	42	40	82
50-54	46	34	80
55-59	37	30	67
60-64	25	29	54
65-69	25	29	54
70+	15	10	25
Unknown*	2	10	12
Total	1168	1192	2360
Otepää, 1765			
0-4	328	362	690
5-9	310	353	663
10-14	363	412	775
15-19	397	383	780
20-24	285	279	564
25-29	190	197	387
30-34	173	188	361
35-39	132	161	293
40-44	146	157	303
45-49	118	107	225
50-54	100	80	180
55-59	61	40	101
60-64	37	53	90
65-69	15	10	25
70+	11	9	20
Unknown	94	149	243
Total	2760	2940	5700

Age group	Total		
	Males	Females	Total
Otepää, 1780			
0-4	435	506	941
5-9	337	368	705
10-14	334	371	705
15-19	276	304	580
20-24	230	292	522
25-29	281	308	589
30-34	283	260	543
35-39	192	167	359
40-44	176	161	337
45-49	124	152	276
50-54	98	99	197
55-59	93	91	184
60-64	62	61	123
65-69	26	28	54
70+	15	12	27
Unknown	52	178	230
Total	3014	3358	6372

* Only village population (serfs)

Table 29

Marital status of the population (per cent): Karuse 1782, Otepää 1765, 1780

Age group	Marital status								
	Males			Females			Total		
	Single	Married	Widower	Single	Married	Widow	Single	Married	Widow
Karuse, 1782 (total)									
15-19	99.2	0.8	-	98.1	1.9	-	98.7	1.3	-
20-24	77.4	22.6	-	71.7	28.3	-	74.3	25.7	-
25-29	39.5	60.5	-	29.4	67.1	3.5	34.3	63.9	1.8
30-34	24.7	75.3	-	12.2	86.9	0.9	17.6	81.9	0.5
35-39	10.6	88.2	1.2	5.0	90.0	5.0	7.9	89.1	3.0
40-44	4.4	95.6	-	11.1	85.2	3.7	8.1	89.9	2.0
45-49	4.9	95.1	-	5.1	79.5	15.4	5.0	87.5	7.5
50-54	4.3	91.4	4.3	5.9	61.8	32.3	5.0	78.75	16.3
55-59	2.7	86.5	10.8	3.5	65.5	31.0	3.0	77.3	19.7
60-64	-	60.0	40.0	3.4	55.2	41.4	1.9	57.4	40.7
65-69	-	68.0	32.0	3.4	41.4	55.2	1.9	53.7	44.4
70+	-	73.3	26.7	-	40.0	60.0	-	60.0	40.0
Total	37.8	58.1	4.1	33.4	56.8	9.8	35.6	57.4	7.0
Otepää, 1765 (total)									
15-19	-	2.5	-	-	8.1	-	-	5.3	-
20-24	-	26.0	-	-	54.1	-	-	39.9	-
25-29	-	70.5	-	-	81.7	-	-	76.2	-
30-34	-	89.6	-	-	86.7	-	-	88.1	-
35-39	-	96.2	-	-	80.1	-	-	87.4	-
40-44	-	95.2	-	-	81.5	-	-	88.1	-
45-49	-	97.5	-	-	72.9	-	-	85.8	-
50-54	-	96.0	-	-	68.7	-	-	83.9	-
55-59	-	82.0	-	-	50.0	-	-	69.3	-
60-64	-	81.1	-	-	18.9	-	-	44.4	-
65-69	-	46.7	-	-	20.0	-	-	36.0	-
70+	-	54.5	-	-	-	-	-	30.0	-
Total	-	56.6	-	-	55.8	-	-	56.2	-
Otepää, 1765 (farmers and their kin)									
15-19	-	3.5	-	-	10.4	-	-	6.7	-
20-24	-	31.9	-	-	62.3	-	-	47.1	-
25-29	-	77.5	-	-	87.4	-	-	82.6	-
30-34	-	93.9	-	-	88.9	-	-	91.3	-
35-39	-	98.1	-	-	89.2	-	-	93.5	-
40-44	-	97.2	-	-	91.7	-	-	94.5	-
45-49	-	98.9	-	-	82.4	-	-	91.8	-
50-54	-	97.2	-	-	77.2	-	-	88.3	-
55-59	-	89.6	-	-	57.7	-	-	78.4	-
60-64	-	73.9	-	-	18.7	-	-	41.8	-
65-69	-	58.3	-	-	22.2	-	-	42.9	-
70+	-	57.1	-	-	-	-	-	25	-
Total	-	62.1	-	-	62.7	-	-	62.4	-

Age group	Marital status								
	Males			Females			Total		
	Single	Married	Widower	Single	Married	Widow	Single	Married	Widow
Otepää, 1765 (cotters and their kin)									
15-19	-	1.1	-	-	2.2	-	-	1.6	-
20-24	-	9.3	-	-	23.1	-	-	14.6	-
25-29	-	66.7	-	-	65.6	-	-	66.0	-
30-34	-	75.0	-	-	74.2	-	-	74.5	-
35-39	-	95.0	-	-	60.5	-	-	71.4	-
40-44	-	86.7	-	-	56.8	-	-	68.9	-
45-49	-	95.8	-	-	57.9	-	-	72.6	-
50-54	-	93.1	-	-	50.0	-	-	74.5	-
55-59	-	53.8	-	-	41.7	-	-	48.0	-
60-64	-	92.9	-	-	19.0	-	-	48.6	-
65-69	-	-	-	-	-	-	-	-	-
70+	-	50.0	-	-	-	-	-	50.0	-
Total	-		-	-		-	-		-
Otepää, 1765 (farmhands, maids and their kin)									
15-19	-	-	-	-	15.8	-	-	8.8	-
20-24	-	26.4	-	-	45.8	-	-	37.2	-
25-59	-	43.3	-	-	82.3	-	-	79.3	-
30-34	-	73.7	-	-	90.0	-	-	79.3	-
35-39	-	71.4	-	-	57.1	-	-	64.3	-
40-44	-	100.0	-	-	100.0	-	-	100.0	-
45-49	-	100.0	-	-	-	-	-	75.0	-
50-54	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-
Total	-	46.5	-	-	53.6	-	-	49.5	-
Otepää, 1780 (total)									
15-19	-	-	-	-	0.3	-	-	0.2	-
20-24	-	18.3	-	-	23.3	-	-	21.1	-
25-29	-	45.9	-	-	51.3	-	-	48.7	-
30-34	-	68.6	-	-	77.3	-	-	72.7	-
35-39	-	84.9	-	-	84.4	-	-	84.7	-
40-44	-	90.9	-	-	87.0	-	-	89.0	-
45-49	-	94.4	-	-	73.7	-	-	83.0	-
50-54	-	90.9	-	-	62.2	-	-	76.6	-
55-59	-	82.8	-	-	44.0	-	-	63.7	-
60-64	-	80.6	-	-	41.0	-	-	61.0	-
65-69	-	84.6	-	-	25.0	-	-	57.3	-
70+	-	46.7	-	-	-	-	-	25.9	-
Total	-	56.6	-	-	49.3	-	-	52.9	-

Age group	Marital status								
	Males			Females			Total		
	Single	Married	Widower	Single	Married	Widow	Single	Married	Widow
Otepää, 1780 (farmers and their kin)									
15-19	-	-	-	-	0.5	-	-	0.2	-
20-24	-	21.0	-	-	28.5	-	-	25.1	-
25-29	-	54.4	-	-	61.0	-	-	57.9	-
30-34	-	75.8	-	-	84.6	-	-	80.1	-
35-39	-	91.9	-	-	90.2	-	-	91.1	-
40-44	-	95.6	-	-	91.1	-	-	93.5	-
45-49	-	96	-	-	75.9	-	-	85.6	-
50-54	-	93.2	-	-	72.6	-	-	83.2	-
55-59	-	86.1	-	-	50.7	-	-	68.8	-
60-64	-	81.2	-	-	47.5	-	-	65.9	-
65-69	-	87.5	-	-	23.8	-	-	51.4	-
70+	-	50.0	-	-	-	-	-	25.0	-
Total	-	61.4	-	-	55.3	-	-	58.3	-
Otepää, 1780 (cotters and their kin)									
15-19	-	-	-	-	-	-	-	-	-
20-24	-	6.0	-	-	9.5	-	-	6.3	-
25-29	-	21.4	-	-	27.6	-	-	24.6	-
30-34	-	43.3	-	-	63.3	-	-	52.3	-
35-39	-	64.3	-	-	60.0	-	-	62.3	-
40-44	-	80.0	-	-	73.9	-	-	77.1	-
45-49	-	93.3	-	-	70.6	-	-	77.6	-
50-54	-	81.0	-	-	33.3	-	-	57.1	-
55-59	-	68.7	-	-	22.7	-	-	42.1	-
60-64	-	78.6	-	-	28.6	-	-	48.6	-
65-69	-	80.0	-	-	28.6	-	-	58.8	-
70+	-	33.3	-	-	-	-	-	33.3	-
Total	-	40.3	-	-	33.7	-	-	36.9	-
Otepää, 1780 (farmhands, maids and their kin)									
15-19	-	-	-	-	-	-	-	-	-
20-24	-	25.0	-	-	11.1	-	-	15.4	-
25-59	-	20.0	-	-	37.5	-	-	30.8	-
30-34	-	66.7	-	-	71.4	-	-	68.4	-
35-39	-	25.0	-	-	33.3	-	-	28.6	-
40-44	-	58.3	-	-	77.8	-	-	69.6	-
45-49	-	83.3	-	-	71.4	-	-	76.9	-
50-54	-	100.0	-	-	33.3	-	-	66.7	-
55-59	-	80.0	-	-	-	-	-	80.0	-
Total									

Table 30

Social strata by age groups: Otepää 1765, 1780

Age group	Farmers		Foster-children		Cotters		Farmhands		Unknown		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Otepää, 1765												
0-9	515	575	14	12	86	93	23	33	-	2	638	715
10-19	491	501	59	67	179	188	27	36	4	3	760	795
20-29	336	342	17	19	72	71	49	41	1	3	475	476
30-39	235	265	4	2	40	74	26	17	-	1	305	359
40-49	199	176	1	-	54	82	9	5	1	1	264	264
50-59	119	83	-	-	42	34	-	3	-	-	161	120
60-69	35	41	-	-	17	22	-	-	-	-	52	63
70+	7	9	-	-	4	-	-	-	-	-	11	9
Age unknown	42	67	2	8	36	57	11	15	3	2	94	149
Total	1979	2059	97	108	530	621	145	150	9	12	2760	2950
Otepää, 1780												
0-9	627	727	18	17	99	97	22	23	-	-	766	864
10-19	479	518	11	26	101	110	17	19	-	-	608	673
20-29	355	406	35	49	106	121	9	17	-	-	505	593
30-39	346	320	17	19	88	74	16	10	-	-	467	423
40-49	237	232	3	4	40	57	18	18	-	-	298	311
50-59	146	142	1	-	37	43	8	3	-	-	192	188
60-69	64	61	-	-	24	28	-	-	-	-	88	89
70-	12	12	-	-	3	-	-	-	-	-	15	12
Age unknown	22	105	3	17	19	40	8	9	-	-	52	171
Total	2288	2523	88	132	517	570	98	99	-	-	2991	3324

Table 31

Household size: Karuse 1795

Manor	Household size												Mean household size
	1	2	3	4	5	6	7	8	9	10	11	12-	
Karuse, 1795 (total)													
Lihula	-	-	-	-	-	2	5	4	1	5	3	5	9.4
Paadrema	-	-	-	-	1	-	3	4	3	-	-	2	8.5
Matsalu	-	-	1	6	6	5	5	6	13	15	8	6	9.3
Vatla	4	2	3	1	4	6	6	11	12	5	3	1	7.5
Nehatu	1	-	1	2	3	8	5	8	6	2	1	2	7.3
Saastna	3	6	1	3	4	9	15	25	13	6	6	3	7.3
Piivarootsi	-	-	-	-	1	3	2	3	2	1	1	1	8.2
Kiska	-	1	2	2	1	-	-	1	2	2	1	2	7.5
Tuudi	-	-	-	1	-	1	2	7	4	4	1	4	9.3
Parsonage	-	-	-	1	1	-	-	-	2	1	-	1	8.3
Total	8	9	8	16	21	34	43	69	58	41	24	27	8.0
Karuse, 1795 (farmers)													
Lihula	-	-	-	-	-	2	5	4	1	5	3	5	9.4
Paadrema	-	-	-	-	1	-	3	4	3	-	-	2	8.5
Matsalu	-	-	-	1	2	3	4	6	13	15	8	6	9.3
Vatla	1	-	-	-	4	5	6	11	12	5	3	1	8.0
Nehatu	1	-	1	2	3	8	5	8	6	2	1	2	7.3
Saastna	-	-	-	-	4	8	14	25	13	6	6	3	8.2
Piivarootsi	-	-	-	-	1	3	2	3	2	1	1	1	8.2
Kiska	-	1	1	-	1	-	-	1	2	2	1	2	8.3
Tuudi	-	-	-	1	-	1	2	7	4	4	1	4	9.3
Parsonage	-	-	-	-	1	-	-	-	2	1	-	1	9.2
Total	2	1	2	4	17	30	41	69	58	41	24	27	8.5
Karuse, 1795 (cotters)													
Lihula	-	-	-	-	-	-	-	-	-	-	-	-	
Paadrema	-	-	-	-	-	-	-	-	-	-	-	-	
Matsalu	-	-	1	5	4	2	1	-	-	-	-	-	
Vatla	3	2	3	1	-	1	-	-	-	-	-	-	
Nehatu	-	-	-	-	-	-	-	-	-	-	-	-	
Saastna	3	6	1	3	-	1	1	-	-	-	-	-	
Piivarootsi	-	-	-	-	-	-	-	-	-	-	-	-	
Kiska	-	-	1	2	-	-	-	-	-	-	-	-	
Tuudi	-	-	-	-	-	-	-	-	-	-	-	-	
Parsonage	-	-	-	1	-	-	-	-	-	-	-	-	
Total	6	8	6	12	4	4	2	-	-	-	-	-	

Household size: Otepää 1765, 1780

Persons per household	1765		1780	
	Number of households	Number of persons	Number of households	Number of persons
Otepää (total)				
1	57	57	53	53
2	32	64	62	124
3	140	420	75	225
4	85	340	63	252
5	74	370	55	275
6	70	420	51	306
7	47	329	50	350
8	66	528	49	392
9	55	495	35	315
10	48	480	53	530
11	35	385	35	385
12	27	324	32	384
13	25	325	24	312
14	20	280	34	476
15	16	240	24	360
16	13	208	20	320
17	7	119	17	289
18	5	90	11	198
19	4	76	14	266
20+	7	150	26	560
Total	833	5700	783	6372
Otepää (farmers)				
3	4	12	4	12
4	6	24	3	12
5	8	40	9	45
6	11	66	5	30
7	12	84	15	105
8	14	112	12	96
9	16	144	10	90
10	17	170	14	140
11	18	198	15	165
12	16	192	17	204
13	14	182	9	117
14	12	168	17	238
15	8	120	15	225
16	7	112	8	128
17	5	85	7	119
18	4	72	7	126
19	3	57	3	57
20+	5	106	15	330
Total	180	1944	185	2239

Persons per household	1765		1780	
	Number of households	Number of persons	Number of households	Number of persons
Otepää (co-partners)				
2	1	2	2	4
3	9	27	8	24
4	12	48	8	32
5	34	170	20	100
6	36	216	17	102
7	28	196	18	126
8	49	392	30	240
9	38	342	19	171
10	31	310	35	350
11	16	176	18	198
12	11	132	14	168
13	11	143	15	195
14	9	126	17	238
15	8	120	9	135
16	6	96	12	192
17	2	34	10	170
18	1	18	4	72
19	1	19	11	209
20+	2	44	11	234
Total	305	2611	278	2960
Otepää (cotters)				
1	57	57	53	53
2	31	62	60	120
3	127	381	63	189
4	67	268	52	208
5	32	160	26	130
6	23	138	29	174
7+	11	85	37	303
Total	348	1151	320	1177

Structure of households

Category	Class
1. Solitaries	(a) Widowed (b) Single of unknown marital status
2. No family	(a) Coresident siblings (b) Coresident relatives of other kind (c) Persons not evidently related
3. Simple family household	(a) Married couples alone (b) Married couples with child(ren) (c) Widowers with child(ren) (d) Widows with child(ren)
4. Extended family household	(a) Extended upwards (b) Extended downwards (c) Extended laterally (d) Combinations of 4a-4c
5. Multiple-family household	(a) Secondary unit(s) up (b) Secondary unit(s) down (c) Units all on one level (d) Fréréches (e) Other multiple families
6. Indeterminate	

[Laslett 1972, 31]

Table 32

Household structure: Karuse 1782, Otepää 1765, 1782

Category/ class	Number of households				Number of households				Number of households			
	Without farmhands	Single farmhands	Farmhands with families	Total	Without farmhands	Single farmhands	Farmhands with families	Total	Without farmhands	Single farmhands	Farmhands with families	Total
	Karuse, 1782				**Otepää, 1765**				**Otepää, 1780**			
					Total							
1a								28				24
1b								29				29
2a								12				33
2b												3
2c												1
3a	5	2		7				15				21
3b	63	52	12	130				351				191
3c	1			1				15				13
3d	8			8				50				72
4a	5	16	6	29				17				12
4b								2				1
4c	7	3	1	11				23				15
4d								8				2
4e								2				
5a	16	13	3	33				16				9
5b	38	17	4	59				135				118
5c	5	4		9				47				74
5d								3				2
5e	11	6		17				78				156
6								2				7
Total	159	113	26	304				833				783
					Farmers							
2a									2	-	-	2
2b									-	1	-	1
3b					29	7	12	48	17	4	3	24
3c									1	-	-	1
3d									3	-	-	3
4a					2	-	2	4	4	-	-	4
4c					6	-	1	7	6	-	-	6
5a					-	-	2	2	3	-	-	3
5b					44	7	4	55	40	-	1	41
5c					19	-	2	21	26	1	3	30
5d					23	3	-	26	52	7	8	67
5e					-	11	6	17				
6									2	1	-	3
Total					123	28	29	180	156	14	15	185

Category/ class	Number of households				Number of households				Number of households			
	Without farmhands	Single farmhands	Farmhands with families	Total	Without farmhands	Single farmhands	Farmhands with families	Total	Without farmhands	Single farmhands	Farmhands with families	Total
	Karuse, 1782				**Otepää, 1765**				**Otepää, 1780**			
					Co-partners							
2a									1	-	-	1
2b									1	-	-	1
2a									1	-	-	1
2b									1	-	-	1
3a									3	1	-	4
3b					92	17	15	124	44	3	5	52
3c									2	-	-	2
3d					4	-	-	4	3	-	-	3
4a					8	1	-	9	1	-	1	2
4b					-	-	2	2				
4c					9	-	1	10	5	-	1	6
4d					2	3	1	6	1	-	1	2
5a					12	-	1	13	3	-	1	4
5b					56	8	10	74	59	2	4	65
5c					15	6	2	23	37	2	3	42
5d									1	-	-	1
5e					31	7	-	38	79	8	2	89
6					2	-	-	2	-	4	-	4
Total					231	42	32	305	240	20	18	278
					Cotters							
1a								28				24
1b								29				29
2a												30
2b												1
2c												1
3a								15				17
3b								179				115
3c								15				10
3d								46				66
4a								4				6
4b												1
4c								6				3
4d								2				
4e								2				
5a								1				2
5b								6				12
5c								3				2
5e												1
Total								348				320

Table 33

Ability to read: Otepää 1765, 1780

Age group	Birth year	Reached age of 20	Males				Females			
			Illiterate	Knew letters	Able to spell	Able to read	Illiterate	Knew letters	Able to spell	Able to read
Otepää, 1765 (total)										
5-9	1756-1760		81.6	1.0	9.4	8.1	89.5	0.8	4.8	4.8
10-14	1751-1755		50.1	4.4	19.8	25.6	56.3	3.1	11.1	29.5
15-19	1746-1750		35.5	4.5	9.1	50.9	42.0	3.1	8.1	46.7
20-24	1741-1745	1761-1765	41.1	0.7	6.3	51.9	61.3	0.7	2.5	35.5
25-29	1736-1740	1756-1760	56.3	-	2.1	41.6	82.7	-	0.5	16.8
30-34	1731-1735	1751-1755	61.8	-	-	38.2	85.6	-	-	14.4
35-39	1726-1730	1746-1750	62.1	-	-	37.9	82.0	-	-	18.0
40-44	1721-1725	1741-1745	72.6	-	-	27.4	92.4	-	-	7.6
45-49	1716-1720	1736-1740	70.3	-	-	29.7	91.6	-	-	8.4
50-54	1711-1715	1731-1735	79.0	-	-	21.0	96.3	-	-	3.8
55-59	1706-1710	1726-1730	70.5	-	-	29.5	100	-	-	-
60-64	1701-1705	1721-1725	97.3	-	-	2.7	96.2	-	-	3.8
Otepää, 1765 (farmers and their kin)										
5-9	1756-1760		75.1	1.1	13.0	10.8	88.6	1.1	5.0	5.3
10-14	1751-1755		42.7	4.7	22.4	30.2	47.3	3.0	12.1	37.5
15-19	1746-1750		27.8	3.5	8.1	60.6	33.9	3.3	8.8	54.0
20-24	1741-1745	1761-1765	33.0	0.5	6.9	59.6	55.3	0.5	2.0	42.2
25-29	1736-1740	1756-1760	51.4	-	2.9	45.7	-	-	0.7	18.9
30-34	1731-1735	1751-1755	55.0	-	-	45.0	82.6	-	-	17.4
35-39	1726-1730	1746-1750	56.3	-	-	43.7	79.3	-	-	20.7
40-44	1721-1725	1741-1745	72.5	-	-	27.5	88.9	-	-	11.1
45-49	1716-1720	1736-1740	67.8	-	-	32.2	88.2	-	-	11.8
50-54	1711-1715	1731-1735	76.1	-	-	23.9	96.5	-	-	3.5
55-59	1706-1710	1726-1730	64.6	-	-	35.4	100	-	-	-
60-64	1701-1705	1721-1725	100	-	-	-	93.8	-	-	6.2
Otepää, 1765 (cotters and their kin)										
5-9	1756-1760		85.2	1.9	7.4	5.6	92.3	-	5.6	1.9
10-14	1751-1755		64.4	2.3	13.8	19.5	71.1	4.1	10.3	14.4
15-19	1746-1750		52.2	6.5	12.0	29.3	59.3	1.1	5.5	34.1
20-24	1741-1745	1761-1765	45.6	1.8	5.3	47.4	74.4	-	5.1	20.5
25-29	1736-1740	1756-1760	80.0	-	-	20.0	90.6	-	-	9.4
30-34	1731-1735	1751-1755	85.0	-	-	15.0	93.5	-	-	6.5
35-39	1726-1730	1746-1750	85.0	-	-	15.0	90.7	-	-	9.3
40-44	1721-1725	1741-1745	66.7	-	-	33.3	100	-	-	-
45-49	1716-1720	1736-1740	83.3	-	-	14.7	97.4	-	-	2.6
50-54	1711-1715	1731-1735	86.2	-	-	13.8	95.5	-	-	4.5
55-59	1706-1710	1726-1730	92.3	-	-	7.7	100	-	-	-
60-64	1701-1705	1721-1725	92.9	-	-	7.1	100	-	-	-

Age group	Birth year	Reached age of 20	Males				Females			
			Illiterate	Knew letters	Able to spell	Able to read	Illiterate	Knew letters	Able to spell	Able to read
Otepää, 1765 (farmhands, maids and their kin)										
5-9	1756-1760		66.7	-	11.1	22.2	100	-	-	-
10-14	1751-1755		66.7	-	25.0	8.3	88.2	-	5.9	5.9
15-19	1746-1750		40.0	6.7	13.3	40.0	63.2	-	5.3	31.6
20-24	1741-1745	1761-1765	68.4	-	5.3	26.3	83.3	-	-	16.7
25-29	1736-1740	1756-1760	73.3	-	-	26.7	88.2	-	-	11.8
30-34	1731-1735	1751-1755	84.2	-	-	15.8	100	-	-	-
35-39	1726-1730	1746-1750	85.7	-	-	14.3	71.4	-	-	28.6
40-44	1721-1725	1741-1745	100	-	-	-	100	-	-	-
45-49	1716-1720	1736-1740	33.3	-	-	66.7	100	-	-	-
50-54	1711-1715	1731-1735	-	-	-	-	100	-	-	-
55-59	1706-1710	1726-1730	-	-	-	-	100	-	-	-
60-64	1701-1705	1721-1725	-	-	-	-	-	-	-	-
Otepää, 1780 (total)										
5-9	1771-1775		76.6		0.6	22.8	82.3		0.5	17.1
10-14	1766-1770		41.6		6.3	52.1	47.2		6.7	46.1
15-19	1761-1765		26.8		9.8	63.4	31.6		12.5	55.9
20-24	1756-1760	1776-1780	41.7		12.6	45.7	46.6		7.9	45.5
25-29	1751-1755	1771-1775	38.8		4.6	56.6	53.2		3.9	42.9
30-34	1746-4750	1766-1770	37.5		1.8	60.8	50.8		-	49.2
35-39	1741-1745	1761-1765	47.9		1.6	50.5	60.5		1.2	38.3
40-44	1736-1740	1756-1760	54.0		-	46.0	82.6		-	17.4
45-49	1731-1735	1751-1755	61.3		-	38.7	82.2		-	17.8
50-54	1726-1730	1746-4750	70.7		-	29.3	85.7		-	14.3
55-59	1721-1725	1741-1745	67.7		-	32.3	89.0		-	11.0
60-64	1716-1720	1736-1740	79.0		-	21.0	91.8		-	8.2
65-69	1711-1715	1731-1735	73.1		-	26.9	100.0		-	-
70+	1706-1710	1726-1730	80.0		-	20.0	100.0		-	-
Otepää, 1780 (farmers and their kin)										
5-9			75.4		0.4	24.2	82.5		0.7	16.8
10-14			38.6		7.5	53.9	43.8		7.4	48.8
15-19			24.1		9.9	66.0	28.1		11.8	60.1
20-24			34.6		14.2	51.2	42.0		8.8	49.2
25-29			33.2		3.1	63.7	48.8		4.7	46.5
30-34			31.3		2.0	66.7	43.1		-	56.9
35-39			43.9		0.7	55.4	55.3		1.5	43.2
40-44			45.4		-	54.6	79.0		-	21.0
45-49			58.4		-	41.6	81.5		-	18.5
50-54			68.9		-	31.1	80.8		-	19.2
55-59			63.9		-	36.1	87.0		-	13.0
60-64			79.2		-	20.8	87.5		-	12.5
65-69			62.5		-	37.5	100		-	-
70+			75.0		-	25.0	100		-	-

Age group	Birth year	Reached age of 20	Males				Females			
			Illiterate	Knew letters	Able to spell	Able to read	Illiterate	Knew letters	Able to spell	Able to read
Otepää, 1780 (cotters and their kin)										
5-9			87.8		-	12.2	82.2		-	17.8
10-14			57.1		2.0	40.8	58.0		4.0	38.0
15-19			38.5		11.5	50.0	46.7		16.7	36.6
20-24			64.0		10.0	25.0	57.1		6.3	36.6
25-29			57.1		7.1	35.7	58.6		3.4	37.9
30-34			46.7		1.7	51.6	69.4		-	30.6
35-39			57.1		7.1	35.7	88.0		-	12.0
40-44			73.3		-	26.7	100		-	-
45-49			66.7		-	33.3	85.3		-	14.7
50-54			85.7		-	14.3	100		-	-
55-59			81.25		-	18.75	95.5		-	4.5
60-64			78.6		-	21.4	100		-	-
65-69			90.0		-	10.0	100		-	-
70+			100		-	-	-		-	-
Otepää, 1780 (farmhands, maids and their kin)										
5-9			77.8		-	22.2	81.8		-	18.2
10-14			41.7		-	58.3	45.5		9.0	45.5
15-19			20.0		-	80.0	12.5		25.0	62.5
20-24			-		-	100	66.7		-	33.3
25-29			40.0		20.0	40.0	75.0		-	25.0
30-34			66.7		-	33.3	71.4		-	28.6
35-39			100		-	-	66.7		-	33.3
40-44			75.0		-	25.0	81.8		-	18.2
45-49			100		-	-	71.4		-	28.6
50-54			33.3		-	66.7	100		-	-
55-59			80.0		-	20.0	-		-	-
60-64			-		-	-	-		-	-

Table 34

Vital events in Rõuge, Karuse and Otepää

Year	Rõuge			Karuse			Otepää		
	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages
1661	33*	1*	26*						
1662	174	8	99						
1663	159	26	61						
1664	182	22	47						
1665	176	14	46						
1666	211	25	37						
1667	237	32	39						
1668	230	23	59						
1669	198	29	18						
1670	183	39	53						
1671	195	32	40						
1672	223	44	46						
1673	239	52	48						
1674	236	23	73						
1675	255	61	68						
1676	249	49	37						
1677	228	46	32						
1678	224	20	46						
1679	225	60	68						
1680	219	86	81						
1681	305	69	79						
1682	252	45	61						
1683	279	48	61						
1684	275	58	37						
1685	238	34	64	53*	32*	31*			
1686	214	22	68	122	40	32			
1687	351	31	53	143	36	30			
1688	230	83	73	100	47	31			
1689	304	87	71	123	70	33			
1690	339	71	32	85*	109*	6*			
1691	283	44	35	55	24	14			
1692	240	56	58	109	67	9			
1693	281	64	75	90	61	20			
1694	308	84	95	100	122	47			
1695	326	111	34	107	42	35			
1696	141*	31*	3*	94	106	18			
1697				70	227	19			
1698				72	89	45			
1699				120	50	35			
1700				143	42	28			
1701				125	71	23			
1702				108	59	17			
1703				136	50	27			
1704				121	72	40			
1705				129	42	23			

Year	Rõuge			Karuse			Otepää		
	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages
1706				151	110	34			
1707				141	74	23			
1708				117	59	18			
1709				118	84	12			
1710				85*	218*	8*			
1712				36*	3*	11*			
1713				62	15	12			
1714				64	25	11			
1715				55	28	5			
1716				50	15	3	232	89	24
1717				43	33	8	213	81	34
1718				42	6	5	201	44	39
1719				60	17	9	213	37	36
1720				43	26	6			
1721				47	37	2	206	79	35
1722				42	29	7	203	92	41
1723				53	22	13	156	54	36
1724				49	57	5	176	69	31
1725				50	26	7	143	65	27
1726				48	26	3	195	74	46
1727				49	27	4	195	65	24
1728				34	79	4	184	83	47
1729				49	35	11	192	93	34
1730				35	23	15	184	137	47
1731				44	24	18	185	103	33
1732				41	33	18	209	60	31
1733				55	44	16	142	63	39
1734				51	26	17	187	52	43
1735				47	27	19	178	73	50
1736				64	34	16	177	95	75
1737				64	37	14	224	140	55
1738				60	31	17	254	111	59
1739				60	34	22	247	155	48
1740				64	77	17	235	172	39
1741				77	37	19	239	124	31
1742				69	41	15	219	93	50
1743				72	53	12	230	76	57
1744				85	60	19	272	236	60
1745				90	41	12	238	193	70
1746				76	70	14	310	98	47
1747				87	34	20	276	144	56
1748				91	41	14	291	75	50
1749				109	76	18	278	115	56
1750				90	81	10	289	160	60
1751				91	73	11	312	168	43
1752				85	51	8	274	154	55
1753				76	59	16	311	125	51

Year	Rõuge			Karuse			Otepää		
	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages	Baptisms	Burials	Marriages
1754				93	40	14	286	169	59
1755				84	48	17	280	264	53
1756				66	65	18	250	328	47
1757				65	82	5	271	243	37
1758				77	49	21	235	176	57
1759				87	59	27	224	147	60
1760				74	29	29	289	98	47
1761				88	87	16	256	290	42
1762				94	52	16	266	154	34
1763				70	55	22	227	217	49
1764				88	50	23	252	212	65
1765				96	49	28	254	189	53
1766				79	56	20	255	138	53
1767				97	60	34	260	156	50
1768				98	34	19	277	198	48
1769				93	46	21	238	197	52
1770				110	51	20	261	130	46
1771				106	50	31	215	222	48
1772				98	86	24	231	200	51
1773				100	127	32	214	185	69
1774				103	57	24	285	180	83
1775				110	52	21	262	206	69
1776				102	63	22	289	133	49
1777				109	65	20	278	284	60
1778				121	55	21	311	218	55
1779				111	59	18	317	159	69
1780				115	40	10	281	247	76
1781				123	58	17	306	294	61
1782				97	45	16	326	249	66
1783				118	65	22	296	350	59
1784				104	134	21	313	230	73
1785				119	60	22	335	178	64
1786				114	89	25	271	285	58
1787				97	56	29	277	266	55
1788				128	80	16	250	394	40
1789				82	152	21	234	294	43
1790				89	74	36	250	196	67
1791				111	131	25	302	220	78
1792				127	61	21	343	246	88
1793				107	62	30	287	257	90
1794				141	42	20	276	259	53
1795				85	67	22	284	208	44
1796				112	113	31	262	172	78
1797				107	51	38	259	255	80
1798				130	57	30	289	240	65
1799				109	83	23	238	458	55

* Data for some months only

Table 35

Seasonality of baptisms, burials, marriages: Rõuge, Karuse, Otepää

	Months											
	J	F	M	A	M	Jn	Jl	A	S	O	N	D
Rõuge												
Baptisms												
1661-1696	83	98	117	123	94	81	84	57	173	90	103	95
Burials												
1661-1696	144	129	109	131	119	96	71	67	74	76	76	105
Marriages												
1661-1696	56	37	26	42	33	16	23	12	25	61	484	382
Karuse												
Baptisms												
1685-1710	100	96	97	92	106	110	96	70	77	98	118	138
1712-1749	91	95	111	104	122	133	92	79	69	108	88	109
1750-1799	106	112	118	100	106	99	70	68	78	95	111	127
Burials												
1685-1710	84	96	146	164	105	74	72	70	123	98	76	97
1712-1749	64	114	148	126	118	85	81	93	115	94	88	73
1750-1799	98	114	112	113	92	89	95	98	103	90	87	103
Marriages												
1685-1710	37	38	24	20	41	43	46	29	43	24	539	315
1712-1749	62	17	36	30	26	43	26	13	13	42	337	547
1750-1799	25	24	12	17	14	25	12	18	16	213	664	164
Otepää												
Baptisms (Estonians)												
1716-1749	106	90	76	95	92	98	90	95	107	115	106	130
1750-1799	98	94	85	94	90	95	102	94	107	107	109	126
Burials (Estonians)												
1716-1749	136	137	132	145	134	98	74	50	48	59	70	117
1750-1799	112	118	134	128	123	105	88	69	74	68	84	97
Marriages (Estonians)												
1716-1749	33	15	22	32	18	32	34	38	31	91	701	147
1750-1799	34	19	15	31	37	62	120	98	106	205	441	34

Table 36
Crude birth and marriage rates in Otepää (per thousand)

Years	Crude birth rate	Crude marriage rate
1716-1719	56.5	8.8
1720-1724	45.2	8.9
1725-1729	40.4	7.9
1730-1734	35.6	7.6
1735-1739	40.8	10.8
1740-1744	42.7	8.5
1745-1749	48.9	9.8
1750-1754	53.5	9.7
1755-1759	44.2	8.9
1760-1764	43.0	7.8
1765-1769	41.4	8.3
1770-1774	38.3	9.4
1775-1779	44.8	9.3
1780-1784	45.4	10.0
1785-1789	42.1	8.0
1790-1794	44.9	11.6
1795-1799	42.3	10.2

Table 37
Age-specific marital fertility rate in Otepää in 1716-1799

Age group	Marriage years	Number of children	Marital birth rate
15-19	36.5	15	0.411
20-24	385.0	176	0.457
25-29	697.5	308	0.442
30-34	624.5	243	0.389
35-39	517.0	183	0.354
40-44	373.0	92	0.247
45-49	247.5	10	0.040
TFR			11.700

INDICATORS

x – Lower limit of age interval
l_x – Number of survivors; number of survivors at age x
q_x – Probability of death
p_x – Probability of survival
d_x – Number of deaths
L_x – Number of person-years lived
T_x – Total number of person-years lived
E_x – Expectation of life

Table 38

Life tables: Karuse, Otepää

x	l_x	q_x	p_x	d_x	L_x	T_x	E_x
Karuse 1783-1794							
0	1000	0.216	0.784	216	892	28557	28.6
1	784	0.182	0.818	143	713	27605	35.3
5	641	0.088	0.912	56	613	24813	38.7
10	585	0.067	0.933	39	574	21748	37.2
15	562	0.035	0.965	23	532	18878	33.6
20	502	0.107	0.893	60	472	16218	32.3
30	442	0.113	0.887	50	417	11498	26.0
40	392	0.262	0.738	103	341	7328	18.9
50	289	0.405	0.595	117	231	3918	13.6
60	172	0.487	0.513	84	130	1608	9.3
70	88					308	
Otepää, 1775-1779							
0	1000	0.198	0.802	198	901	41590	41.6
1	802	0.095	0.905	76	764		
2	726	0.076	0.924	55	698		
3	671	0.062	0.938	42	650		
4	629	0.036	0.964	22	617		
5	606	0.024	0.976	15	598	37960	62.6
10	591	0.013	0.987	8	587	34970	
15	583	0.012	0.988	7	579	32050	
20	576	0.009	0.991	5	573	29155	50.6
25	571	0.010	0.990	5	568	26290	
30	565	0.011	0.989	6	562	23450	
35	559	0.012	0.988	7	555	20640	
40	552	0.018	0.982	10	547	17865	32.3
45	542	0.019	0.981	10	537	15130	
50	532	0.044	0.956	23	520	12445	
55	509	0.060	0.940	30	493	9845	
60	478	0.094	0.906	45	455	7380	15.4
65	433	0.149	0.851	64	400	5105	
70	368	0.214	0.786	79	328	3105	
75	289	0.350	0.650	101	233	1465	
Otepää, 1780-1784							
0	1000	0.188	0.812	188	906	32775	32.8
1	812	0.162	0.838	132	746		
2	680	0.140	0.860	95	632		
3	585	0.133	0.867	78	546		
4	507	0.069	0.931	35	490		
5	472	0.041	0.959	20	462	29455	62.4
10	453	0.016	0.984	7	449	27145	
15	446	0.008	0.992	3	442	24900	
20	438	0.008	0.992	4	436	22690	51.8
25	434	0.007	0.993	3	432	20510	
30	431	0.012	0.988	5	428	18350	
35	426	0.010	0.990	4	424	16210	
40	422	0.022	0.978	9	417	14090	33.4
45	413	0.017	0.983	7	409	12005	
50	406	0.032	0.968	13	399	9960	
55	393	0.050	0.950	20	383	7965	
60	373	0.094	0.906	35	355	6050	16.3
65	338	0.148	0.852	50	313	4255	
70	288	0.182	0.818	52	262	2690	
75	236	0.200	0.800	47	212	1380	
80	189					320	

Table 39

*Illegitimate children, twins, triplets in Otepää in 1716-1799**

Years	Illegitimate children	Twins	Triplets	Quadruplets	Illegitimacy
1716-1724	32	88 (176)	3 (9)	-	1.8
1725-1749	75	80 (160)	4 (12)	-	1.5
1750-1774	141	111 (222)	1 (3)	1 (4)	2.2
1775-1799	33	196 (392)	1 (3)	-	0.5

* First figure – number of births, second (in brackets) – number of infants born

Table 40

Age gap between partners at their first marriage in Otepää in 1725-1799 (in years)

	1725-1749		1750-1774		1775-1799		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Under 1 year	10	9.4	52	11.4	40	6.4	102	8.6
Husband older								
1-4	38	35.8	170	37.3	190	30.4	398	33.5
5-9	28	26.4	102	22.4	170	27.2	300	25.3
10 and more	4	3.8	24	5.3	65	10.4	93	7.8
Wife older								
1-4	20	18.9	86	18.9	95	15.2	201	16.9
5-9	6	5.7	22	4.8	50	8.0	78	6.6
10 and more	-	-	-	-	15	2.4	15	1.3
Total	106		456		625		1187	

Table 41

Vital events in Estonia in 1715-1799

Years	Number of vital events			Crude rates			
	Marriages	Baptisms	Burials	Marriage rate	Birth rate	Death rate	Natural increase
1715-1719	1525	8260		8.2	44.6		
1720-1724	1590	8450		7.7	40.9		
1725-1729	1780	8535		7.9	37.6		
1730-1734	2180	8820		8.6	34.8		
1735-1739	2990	10770	6360	10.8	38.9	23.0	15.9
1740-1744	2560	12010	7290	8.9	41.6	25.2	16.3
1745-1749	2910	14550	9260	9.0	44.9	28.6	16.3
1750-1754	2945	15560	9520	8.4	44.5	27.2	17.2
1755-1759	3140	14615	12190	8.5	39.4	33.9	6.5
1760-1764	3310	15010	10250	8.7	39.3	26.8	12.5
1765-1769	3600	15620	9730	8.7	37.6	23.4	14.2
1770-1774	3820	16410	12180	8.7	37.3	27.7	9.6
1775-1779	4120	18600	11080	9.1	40.9	24.4	16.5
1780-1784	3970	18255	15030	8.2	37.6	31.0	6.5
1785-1789	3755	17730	17480	7.7	36.2	35.7	0.5
1790-1794	5250	20160	14280	10.7	41.0	29.0	12.0
1795-1799	5190	21650	16800	10.4	43.6	33.8	9.8

Table 42

Seasonality of marriages in Estonia in 1715-1799

Month	Estonian peasants		Germans	
	1711-1749	1750-1799	In rural parishes 1711-1799	In Kuressaare 1705-1820
January	163.5	107.2	111.3	103.5
February	57.3	50.9	112.9	137.3
March	39.7	28.8	100.0	94.8
April	32.8	27.2	74.2	65.7
May	38.8	41.1	100.0	79.0
June	60.7	60.6	109.7	102.0
July	33.4	40.8	77.4	51.7
August	23.5	34.0	83.9	63.3
September	26.9	39.8	100.0	117.3
October	50.2	67.2	122.6	117.3
November	342.8	388.0	93.5	152.5
December	330.4	304.4	112.9	115.6

Table 43

Population in rural parishes of Estonia in 1732, 1782

Parish, county	1732	1782	1782-1732
1	2	3	4
Rapla	3080	6387	3307
Kose	2769	5438	2669
Hageri	2143	5150	3007
Juuru	1919	5107	3188
Nissi	1207	3288	2081
Harju-Madise & Risti	2929	5179	2250
Kuusalu	2781	5296	2515
Jõelähtme	1851	3345	1494
Harju-Jaani	1696	3484	1788
Jüri	1709	3467	1758
Keila	3048	6594	3546
Harjumaa	25132	52735	27603
Haljala	3622	6366	2744
Kadrina	4009	6039	2030
Simuna	3102	5193	2091
Väike-Maarja	2488	4174	1686
Rakvere	1648	3380	1732
Viru-Jaagupi	2311	3698	1387
Viru-Nigula	2969	5122	2153
Lüganuse	1741	3167	1426
Jõhvi	3659	7688	4029
Vaivara	530	2055	1525
Virumaa	26079	46882	20803
Ambla	2845	4600	1755
Järva-Madise	1290	2420	1130
Paide & Anna	1138	1564	426
Järva-Jaani	2052	3543	1491
Koeru	2472	4251	1779
Peetri	2730	4786	2056
Türi	1965	4441	2476
Järvamaa	14492	25605	11113
Vigala	3112	5752	2640
Märjamaa	1087	2722	1635
Kullamaa	2752	6176	3424
Mihkli	370	926	556
Kirbla	552	1704	1152
Lihula	383	1052	669
Karuse	1370	2950	1580
Hanila & Varbla	1180	3364	2184
Martna	1252	2828	1576
Ridala	2011	3740	1729
Lääne-Nigula	1509	3638	2129
Noarootsi	1522	3159	1637

Parish, county	1732	1782	1782-1732
1	2	3	4
Vormsi	1247	1704	457
Pühalepa	2310	3361	1051
Käina	2348	4533	2185
Reigi	1854	1665	-189
Läänemaa	24859	49274	24415
Torma	1512	3213	1701
Laiuse	2763	6098	3335
Kodavere	1917	3696	1779
Palamuse	1993	3108	1115
Maarja-Magdaleena	2237	4747	2510
Äksi	1927	4667	2740
Kursi	850	2010	1160
Puhja	1748	3349	1601
Rannu	2408	3685	1277
Rõngu	2950	4659	1709
Sangaste	5059	8860	3801
Otepää	4800	6600	1800
Nõo	2320	4199	1879
Tartu-Maarja	2916	7349	4433
Kambja	3842	7209	3367
Võnnu	3616	7966	4350
Tartumaa	42858	81415	38557
Põlva	4179	7266	3087
Räpina	2772	6319	3547
Vastseliina	2682	6573	3891
Rõuge	5615	12109	6494
Hargla	1918	3790	1872
Kanepi	2964	4753	1789
Urvaste	5936	9346	3410
Karula	2792	4361	1569
Võrumaa	28858	54517	25659
Põltsamaa	4925	8514	3589
Pilistvere	2523	5010	2487
Kolga-Jaani	1502	3672	2170
Suure-Jaani	2701	6854	4153
Viljandi	3654	9262	5608
Paistu	2553	6653	4100
Tarvastu	2587	6664	4077

Parish, county	1732	1782	1782-1732
1	2	3	4
Helme	3808	6912	3104
Viljandimaa	24253	53541	29288
Halliste	2455	5800	3345
Karksi	1708	3876	2168
Vändra	1089	2950	1861
Pärnu-Jaagupi	1142	3855	2713
Saarde	737	1975	1238
Tori	494	1252	758
Häädemeeste	*343	863	520
Pärnu	901	2658	1757
Tõstamaa	729	2330	1601
Mihkli	759	2295	1536
Audru	940	2670	1730
Pärnumaa	11297	30524	19227
Muhu	985	2488	1503
Pöide	1787	4778	2991
Jaani	193	425	232
Karja	1088	2919	1831
Valjala	983	2656	1673
Püha	823	2581	1758
Kaarma	1871	4724	2853
Kärla	390	1579	1189
Mustjala	609	1103	494
Kihelkonna	2069	3388	1319
Anseküla	406	1221	815
Jämaja	899	1876	977
Saaremaa	12103	29738	17635

Table 44

Crude birth and death rates in Sweden in 1720-1800

Years	CBR	CDR
1720-1725	35.2	28.4
1726-1730	34.7	28.0
1731-1735	34.4	27.6
1736-1740	33.9	32.9
1741-1745	34.0	33.5
1746-1750	34.4	27.0
1751-1755	37.1	26.3
1756-1760	34.3	28.2
1761-1765	34.6	29.0
1766-1770	33.8	26.2
1771-1775	31.3	33.0
1776-1780	34.7	24.9
1781-1785	31.8	27.8
1786-1790	32.1	28.0
1791-1795	33.9	25.1
1796-1800	32.8	25.7

Table 45

Crude birth and death rates in Finland in 1750-1800

Years	CBR	CDR
1751-1755	45.3	28.6
1756-1760	44.5	29.6
1761-1765	43.7	32.3
1766-1770	41.7	28.4
1771-1775	38.4	23.7
1776-1780	41.3	26.0
1781-1785	40.4	27.7
1786-1790	37.5	31.9
1791-1795	41.1	29.3
1796-1800	39.2	23.8

Table 46

Population of Estonia in 1715-1800 (in thousands, estimated)

Year	Population	Year	Population
1715	175	1760	377
1720	195	1765	400
1725	220	1770	430
1730	241	1775	450
1735	265	1780	480
1740	290	1785	490
1745	313	1790	490
1750	335	1795	495
1755	365	1800	500

Table 47

Marital fertility rate in Karuse (marriages in 1713-1779)

Marriage years	Age group					
	20-24	25-29	30-34	35-39	40-44	45-49
1713-1749	0.452	0.401	0.396	0.355	0.172	0.017
1750-1759	0.438	0.387	0.379	0.341	0.169	0.016
1760-1779	0.421	0.378	0.361	0.333	0.165	0.014
1713-1749	8.966	6.706	4.701	2.721	0.945	0.085
1750-1759	8.65	6.46	4.525	2.63	0.925	0.080
1760-1779	8.36	6.255	4.365	2.56	0.895	0.070

Table 48

Age-specific fertility in Karuse in 1760-1779

Age group	Marital fertility	Proportion of married women	Age-specific fertility
15-19	(0.400)	0.02	(0.008)
20-24	0.421	0.283	0.122
25-29	0.378	0.671	0.260
30-34	0.361	0.896	0.322
35-39	0.333	0.900	0.307
40-44	0.165	0.852	0.144
45-49	0.014	0.795	0.011

Table 49

Number of baptised boys and girls in Otepää in 1716-1799

Years	Boys	Girls	Total	Boys per 100 girls
1716-1724	946	849	1795	111
1725-1749	2832	2647	5479*	107
1750-1774	3271	3271	6542	100
1775-1799	3652	3463	7115	105

*Including four children whose sex is unknown

Table 50

Buried persons by sex in Otepää in 1716-1799

Years	Males	Females	Unknown	Total	Males per 100 females
1716-1724	309	286	1	596	108
1725-1749	1333	1307	56	2696	102
1750-1774	2340	2261	33	4634	103
1775-1799	3269	3021	2	6292	108

Table 51

Mean intervals between births in Karuse (marriages in 1712-1799)

Marriage => first child	1 => 2	2 => 3	3 => 4	4 => 5
16.3	28.6	30.8	31.5	32.1