

Doctoral Dissertation

Landscapes and Settlements in the Kecskemét Region, 1300-1700

by

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TABLE OF CONTENTS

ACKNOWLEDGEMENT	IV
LIST OF FIGURES	V
LIST OF TABLES	XX
1. INTRODUCTION	1
2. METHODS AND SOURCES	6
2.1 METHODOLOGICAL NOTE ON THE STUDY OF THE LANDSCAPE IN THE DANUBE TISZA INTERFLUVE REGION.....	6
2.2 WRITTEN SOURCES	8
2.3 TOPONYMS.....	11
2.4 CARTOGRAPHY.....	12
2.5 DATA FROM HISTORICAL ECOLOGY AND ENVIRONMENTAL STUDIES.....	13
2.6 ARCHAEOLOGICAL DATA	15
2.6.1 <i>Archaeological material, excavation data</i>	15
2.6.2 <i>Landscape studies</i>	16
2.6.3 <i>Aerial Photos</i>	18
3. THE NATURAL ENVIRONMENT	18
3.1 GENERAL REMARKS.....	18
3.2 GEOGRAPHY.....	19
3.3 HYDROLOGY	20
3.4 VEGETATION, ECOSYSTEMS.....	21
3.5 ANTHROPOGENIC INFLUENCES ON THE LANDSCAPE IN THE MODERN PERIOD	23
4. THE LANDSCAPE OF VILLAGES.....	25
4.1 GENERAL NOTES.....	25
4.2 THE DEVELOPMENT OF VILLAGES IN HUNGARY BEFORE THE FOURTEENTH CENTURY	28
4.3 LATE MEDIEVAL VILLAGES IN THE DANUBE-TISZA INTERFLUVE REGION.....	32
4.4 THE FIRST MAJOR WAVE OF SETTLEMENT DESERTION IN THE THIRTEENTH-FOURTEENTH CENTURY	34
4.5 THE SETTLEMENT OF THE CUMANS.....	36
4.6 VILLAGES IN THE FIFTEENTH-SIXTEENTH CENTURY – INTEGRATION AND INNER DESERTION.....	40
4.7 SETTLEMENT DESERTION IN THE OTTOMAN OCCUPATION PERIOD	42
4.8 THE MORPHOLOGY OF LATE MEDIEVAL VILLAGES.....	47

4.9 THE ELEMENTS OF THE LATE MEDIEVAL VILLAGE TOPOGRAPHY	57
4.9.1 <i>Streets</i>	57
4.9.2 <i>The toft</i>	59
4.9.3 <i>Houses and households</i>	61
4.9.4 <i>Parish churches & churchyards</i>	66
4.9.5 <i>Monasteries</i>	70
4.9.6 <i>Noble residences in villages</i>	74
4.10 DISCUSSION ON THE DEVELOPMENT OF VILLAGE SYSTEM IN THE CENTRAL PART OF THE DANUBE-TISZA INTERFLUVE REGION	75
5. LATE MEDIEVAL VILLAGES IN THE DANUBE-TISZA INTERFLUVE REGION: TWO CASE STUDIES	78
5.1 MONOSTOR: A SETTLEMENT WITHOUT WRITTEN RECORD	78
5.1.1 <i>Documentary sources</i>	79
5.1.2 <i>Maps</i>	81
5.1.3 <i>Archaeology</i>	82
5.1.4 <i>Settlement history/morphology</i>	83
5.2 SZENTKIRÁLY: A CUMAN VILLAGE IN THE DANUBE-TISZA INTERFLUVE REGION	88
5.2.1 <i>Documentary sources</i>	88
5.2.2 <i>Maps</i>	90
5.2.3 <i>Archaeology</i>	91
5.2.4 <i>Settlement history/morphology</i>	92
5.2.5 <i>Church and cemetery</i>	95
5.2.6 <i>Plots and Houses</i>	96
6. THE LANDSCAPE OF MARKET TOWNS	99
6.1 AN OVERVIEW ON THE URBANIZATION IN THE CARPATHIAN BASIN, WITH A SPECIAL EMPHASIS ON THE DEVELOPMENT OF MARKET TOWNS	100
6.2 THE DEVELOPMENT OF THE TOWN NETWORK DURING THE PERIOD OF OTTOMAN OCCUPATION	108
6.3 THE TOPOGRAPHICAL AND ARCHAEOLOGICAL RESEARCH OF MARKET TOWNS.....	110
7. URBAN DEVELOPMENT IN THE GREAT PLAIN REGION: KECSKEMÉT HIERARCHY	114
7.1 THE PLACE OF KECSKEMÉT IN THE REGIONAL SETTLEMENT.....	114
7.2 THE DEVELOPMENT OF KECSKEMÉT: OWNERSHIP AND LEGAL STATUS	116

7.3 THE TOWNSCAPE OF KECSKEMÉT: GENERAL CHARACTERISTICS AND CARTOGRAPHIC REPRESENTATIONS	117
7.4 THE ELEMENTS OF THE TOWN PLAN	121
7.4.1 <i>The streets</i>	121
7.4.2 <i>Town Defences</i>	126
7.4.3 <i>Ecclesiastic buildings</i>	128
7.4.4 <i>Monasteries, friaries</i>	132
7.4.5 <i>Cemeteries</i>	134
7.4.6 <i>Markets</i>	135
7.4.7 <i>Administration/Self Governance</i>	139
7.4.8 <i>Ottoman administration at Kecskemét</i>	142
7.4.9 <i>The town hall</i>	144
7.4.10 <i>Residence/Town houses</i>	145
7.4.11 <i>Education and schools</i>	146
7.4.12 <i>Hospitals</i>	147
7.4.13 <i>Industries: crafts and guilds</i>	148
7.5 CONCLUSIONS ON THE URBAN DEVELOPMENT OF KECSKEMÉT	152
8. LAND MANAGEMENT.....	156
8.1 THE WIDER CONTEXT.....	156
8.2 BOUNDARIES	158
8.3 THE FIELD SYSTEM	165
8.4 THE PATTERN OF ARABLE FIELDS AND PASTURES	179
8.5 MEADOWS, HAYFIELDS	185
8.6 CHANGING LAND MANAGEMENT AT MONOSTOR: A CASE STUDY	186
8.7 WOODLAND MANAGEMENT.....	188
8.8 VINEYARDS AND ORCHARDS.....	191
8.9 DISCUSSION	192
9. CONCLUSIONS	195
APPENDIX I.	208
APPENDIX II.....	228
BIBLIOGRAPHY	229

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LIST OF FIGURES

Fig 1 The study area around Kecskemét.

Fig 2 The study area as depicted on the earliest map of Hungary dating from 1528. (*Tabula Hungariae ab quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalis secretarii...* Budapest, Országos Széchényi Könyvtár [National Hungarian Library], Apponyi Collection M 136.).

Fig 3 Aerial photo of the medieval village site at Alsómonostor taken for military purposes in the 1950s (Map Collection, Institute for Military History, Budapest).

Fig 4 Aerial photo of the medieval village site at Bugac taken for military purposes in the 1950s (Map Collection, Institute for Military History, Budapest).

Fig 5 Aerial photo taken by Otto Braasch at the medieval village site Bugac (1997-2002). Aerial Archaeological Archive of Pécs.

Fig 6 Aerial photo taken by Otto Braasch at the medieval village site Bugac (1997-2002). Aerial Archaeological Archive of Pécs.

Fig 7 Aerial photo taken by Otto Braasch at the medieval village site at Alsómonostor (1997-2002). Aerial Archaeological Archive of Pécs.

Fig 8 Aerial photo taken by Otto Braasch at the medieval village site Felsőmonostor (1997-2002). Aerial Archaeological Archive of Pécs.

Fig 9 Aerial photo taken by Zsuzsa Miklós at the medieval village site Felsőmonostor, 2004.

Fig 10 Aerial photo taken by Zsuzsa Miklós at the medieval village site Szentkirály, 2004.

Fig 11 Intensively cultivated open fields and dispersed isolated farmsteads near Kecskemét (Google Earth, 2012)

Fig 12 Intensively cultivated open fields and dispersed isolated farmsteads near Kecskemét (Google Earth, 2012).

Fig 13 The “Pusztá” at Bugac (photo taken by the author, 2008).

Fig 14 The “puszta” landscape at Orgovány (accessed from: < http://puszta.com/hun/hungary/cikk/pimpo_tanosveny_orgovany>).

Fig 15 The elevation map of the area between the Danube and Tisza Rivers (accessed from: < http://www.hidrologia.hu/vandorgyules/27/dolgozatok/02gyiran_istvan.htm>).

Fig 16 The “Kenyérvárárohalom” at Szentkirály (photo by the author).

Fig 17 Lake Kolon on the First Ordnance Survey (1782-1784).

Fig 18 Lake Kolon at Izsák today (photo accessed from: <<http://itthon.hu/kolon-to>>)

Fig 19 The Vörös mocsár [Red Marsh] at Császártöltés.

Fig 20 Wind-blown sand at Bugac (photo accessed at: <http://itthon.hu/nemzeti-parkok/kiskunsagi-nemzeti-park/kiskunsagi-nemzeti-park>).

Fig 21 Wind-blown sand dune at Bugac (photo accessed at: <http://itthon.hu/nemzeti-parkok/kiskunsagi-nemzeti-park/kiskunsagi-nemzeti-park>).

Fig 22 The colonization of sand –dunes. (photo accessed from: http://forestpress.hu/jie_hu/images/stories/fafajok/boroka03.jpg)

Fig 23 The "Nagy-Talfája" and "Kis-Talfája" Woods near Kecskemét as represented on the Second Ordnance Survey (1809-1869)

Fig 24 The remains of the forest steppe at Nagykőrös (http://www.wwf.hu/d_img/2007-05-25-IMG_7140.JPG).

Fig 25 Planted woodland near Bugac (photo by the author).

Fig 26 Extended planted woodlands on aerial photos north of Bugac (Google Earth, 2012).

Fig 27 The Tisza River at Alpár as represented on the First Ordnance Survey (1782-1784).

Fig 28 The Tisza River at Alpár as represented on the Second Ordnance Survey (1806-1869).

Fig 29 The Tisza River at Alpár as represented on the Third Ordnance Survey (1872-1884).

Fig 30 The Tisza River at Alpár as represented on the Cadastral Survey Map in 1952.

Fig 31 The Tisza at Alpár today with the numerous oxbow lakes (Google Earth, 2012).

Fig 32 Dehydration in the Danube-Interfluvial Region at the Kígyósér, near Szabadszállás (after Rakonczai-Kovács, A szárazodási folyamat értékelése; accessed from: <http://www.geo.u-szeged.hu/web/klimavaltozas-foeldrajzi-hatasai-tajvaltozasok-ertekelese>)

Fig 33 Dried up sodic lakes at Alsómonostor (aerial photo by Otto Braasch, Aerial Archaeological Archive, Pécs, 1997-2002)

Fig 34 The present-day landscape-ecological map of the Kiskunság Sand Region (Legend: grey: agricultural areas; red: built-in areas; blue: water covered areas; green: grassland; greenish-yellow: steppe meadows; light brown: open forest; dark brown: closed forest ; lilac: planted forests) after Biró et al., A kiskunsági homokvidék tájökölógiai térképe).

Fig 35 Detail from an Árpadian Age village (after: Bencze-Gyulai-Sabján-Takács, *Egy Árpád-kori veremház*).

Fig 36 The Árpadian Age house (top left: excavated house; top right: the reconstructed section of the house; bottom left: re-built Árpadian Age house; after: Bencze-Gyulai-Sabján-Takács, *Egy Árpád-kori veremház*).

Fig 37 Escape from the Mongols' invasion as depicted by Johannes Thuroczy in the *Chronica Hungarorum* (1488) (the online version of the chronicle is available at <http://thuroczykronika.atw.hu/>).

Fig 38 Map reconstructing the perambulation of Cegléd in 1368, based on place name evidence (after Dániel Ferenc Szántó, *A térkép szerepe a régészetben az M0-ás útgyűrű megelőző régészeti feltárásának példáján keresztül* [The role of mapping in archaeology, as exemplified by the preliminary archaeological survey at the M0 motorway], MA Dissertation, Manuscript, Budapest: ELTE, Department of Cartography and Geoinformatics, 2003 (as accessed from <http://lazarus.elte.hu/hun/digkonyv/szakdolg/szantho/sz.htm> on 15 May 2010>).

Fig 39 Medieval churches identified around Cegléd and Nagykőrös (after: Tari, Pest megye középkori templomai).

Fig 40 The settlement areas of the Cumans in the Great Plain of Hungary (after Pálóczi-Horváth, *Pechenegs, Cumans, Iassians*).

Fig 41 Deserted village churches identified around Kecskemét (after Szabó, *A magyar nép*, Káldy-Nagy, *A budai szandzsák 1546-1590*, Pálóczi-Horváth, *A felsőszentkirályi kun sírlelet*, Rosta, *Újabb eredmények*). Legend: red: market town; green: inhabited villages cca 1400; yellow: Árpadian Age village churches deserted by 1400.

Fig 42 Deserted Cuman villages as represented on the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2)

Fig 43 Villages around Kecskemét cca 1450 (drawn by the author, based on the data from Szabó, *A magyar nép*, Rosta, *Újabb eredmények*).

Fig 44 Deserted villages and urban settlements, with the main traffic roads and ferry points/custom stations delineated around Kecskemét on *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740 (Budapest: National Széchenyi Library of Hungary. TK 1086). The drawn black lines indicate those traffic routes that were depicted on the county map in 1740; the intermittent lines show hypothesized/reconstructed routes).

Fig 45 Late medieval villages around Kecskemét (blue: Hungarian owner; yellow: Cuman owner, red: market town), shown on the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 46 The inhabited villages around Kecskemét cca 1550, and the deserted lands cultivated by the Kecskemét citizens (drawn by the author after the data by Káldy-Nagy, *A budai szandzsák 1546-1590* and Szabó, *A magyar nép*).

Fig 47 The reconstructed ground-plan of Szentkirály (after Pálóczi-Horváth, *Élet a középkori Szentkirályon*).

Fig 48 The ground-plan of the medieval Móric village (after Holl, *Mittelalterlichen Dorfgrundrisse*).

Fig 49 The ground-plan of the medieval Nyársapát village (after Holl, *Mittelalterliche Dorfgrundrisse in Ungarn*).

Fig 50 The ground-plan of Csőt village (after Holl, *Mittelalterliche Dorfgrundrisse in Ungarn*).

Fig 51 The ground plan of Sarvaly (after Holl, *Das mittelalterliche Dorf Sarvaly*).

Fig 52 The ground-plan of Szentmihály (after Holl, *A középkori Szentmihály falu ásatása II*).

Fig 53 The row of plots along the street of medieval Ete (after Miklós-Vizi, *Angaben zur Siedlungsgeschichte des mittelalterlichen Marktfleckens Ete*).

Fig 54 The doubled infields of Hajdúböszörmény as represented on the First Ordnance Survey (1782)

Fig 55 The doubled infields of Szabadszállás on the First Ordnance Survey (1780-1784).

Fig 56 The belt of gardens around Nagykőrös on the First Ordnance Survey (1780-1784).

Fig 57 The belt of gardens around Cegléd on the First Ordnance Survey (1780-1784).

Fig 58 Treading of corn (Átány, Heves County, 1930s) (photo accessed from: <<http://mek.oszk.hu/02700/02790/html/img/103.jpg>>).

Fig 59 Treashing out of corn (Óbánya, Baranya County, 1930s) (photo accessed from: <<http://mek.oszk.hu/02700/02790/html/img/105.jpg>>).

Fig 60 Apáthy (Jászapáti) as delineated on the First Ordnance Survey (1780-1784).

Fig 61 Jászapáti on the modern 1:10.000 Cadastral map (2004).

Fig 62 Early isolated farmsteads on the First Ordnance Survey (1780-1784) near Kecskemét.

Fig 63 Early isolated farmsteads on the First Ordnance Survey (1780-1784) at Kisbalázs.

Fig 64 Extensive belt of “gardens” around Fülöpszállás on the First Ordnance Survey (1780-1784).

Fig 65 The dense network of isolated farmsteads in the close neighbourhood of Kecskemét on the First Ordnance Survey (1780-1784).

Fig 66 The excavation plan of an early modern farmstead from Balástya (after Béres, Magányos települések).

Fig 67 Possible site of an early modern isolated farmstead from the air at Bugac (aerial photo by Zsuzsa Miklós).

Fig 68 Possible site of an early modern isolated farmstead from the air at Bugac (aerial photo by Otto Brasch, 1997-2002; Aerial archaeological Archive, Pécs).

Fig 69 Possible site of early modern isolated farmsteads from the air at Bugac (aerial photo by Otto Brasch, 1997-2002; Aerial archaeological Archive, Pécs).

Fig 70 Streetscape from Adorján (Bács-Kiskun county) in the 1960s. (photo accessed from: <http://mek.oszk.hu/02100/02115/html/5-1019.html>).

Fig 71 The ground-plan of an excavated peasant plot at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*).

Fig 72 Reconstructed toft at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*, 54).

Fig 73 Excavated layout and reconstruction of a medieval house from Szentkirály (after Pálóczi-Horváth, *A késő középkori népi építészet kutatásának újabb eredményei*).

Fig 74 House Nr 17 from Sarvaly, excavated ground plan and reconstruction (after Sabján, *Késő középkori lakóházak rekonstrukciója*).

Fig 75 The reconstruction of a tile stove from Szentkirály. (after Sabján, *A késő középkori népies kályháink*)

Fig 76 Stove tiles from Lak (after Sabján, *A késő középkori népies kályháink*).

Fig 77 Stove tiles from the Great Plain Region (after Sabján, *A késő középkori népies kályháink*, 295).

Fig 78 The ground plan of an excavated medieval log house (1,2,3,4) with a stone-built cellar (K3) from Sarvaly (after Holl - Parádi, *Das mittelalterliche Dorf Sarvaly*).

Fig 79 Medieval well from Szentkirály (after Pálóczi, *Puits des villages médiévaux en Hongrie*).

Fig 80 The ecclesiastical organization of Hungary in the medieval period (after Koszta, *Dél-Magyarország egyházi topográfiája a középkorban*).

Fig 81 The layout of the deserted church at Mizse (after Szabó, *A magyar nép*).

Fig 82 The layout of the deserted medieval church at Bene (after Szabó, *A magyar nép*).

Fig 83 The ground-plan of the deserted medieval church at Baracs (after Szabó, *A magyar nép*).

Fig 84 Monastic communities in the Great Plain Region (after Koszta, *Dél-Magyarország egyházi topográfiája*). Legend: yellow: Benedictine; red: Cistercian; blue: Premonstratensians.

Fig 85 The excavated layout of the monastic complex at Ellésmonostor (after Pávai, *Ellésmonosortor kutatása*).

Fig 86 The published excavation plan of the Bátmonostor monastery (after Biczó, *Régészeti kutatások a középkori Bátmonostor területén*).

Fig 87 Horse show at Bugac. Accessed from: (<<http://kirandulastervezo.hu/celpont/bugac/bugac-pusztakarikas-csarda>).

Fig 88 The intensively cultivated fields and newly forested areas around the modern Bugac village (Google Earth).

Fig 89 Detail from the Tabula Hungariae showing Kecskemét, Monostor (Monstor) and Szentkirály (S Rex).

Fig 90 Monostor as depicted by Mikoviny in 1732. Detail from *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, Samuel Mikoviny (Budapest: Map Collection of the Institute of Military History; accessible at: http://mek.niif.hu/06400/06422/html/top_megye/megye5.htm).

Fig 91 Monostor and Bugac as depicted in 1740. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740 (Budapest: National Széchenyi Library of Hungary. TK 1086).

Fig 92 Monostor and Bugac as depicted in 1793. Detail from *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla (Map Collection of the National Széchenyi Library of Hungary S12 Div 10 No 76:1-2).

Fig 93 Monostor in 1783; *Mappa Predii Monostor*, 1783, author unknown (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20).

Fig 94 Felsőmonostor as depicted on the First Ordnance Survey (1780-1784).

Fig 95 Bugac around 1800; n.n. [without label], c. 1800, author unknown (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20).

Fig 96 Felsőmonostor on the Second Ordnance Survey (1806-1869).

Fig 97 Bugac and Monostor as represented on the Third Ordnance Survey (1872-1884).

Fig 98 The hydrological map of Monostor from 1857; n.n. [without label], 1857, author unknown, Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 21).

Fig 99 Bugac and Monostor in 1885. Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The overview of Kecskemét], 1885, by Gusztáv Rihocsek (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483).

Fig 100 Bugac and Monostor in 1919. Detail from *Kecskemét t.h. város külső területének térképe* [The map of Kecskemét], 1919, by Tibor Kerekes (Kecskemét: Municipal Archives of Kecskemét).

Fig 101 The layout of the deserted church ruin at Alsómonostor, as published in a local newspaper in 1926 (after Rosta, *Pusztatemplomok Kiskunfélegyháza környékén*).

Fig 102 The layout of the deserted church ruin at Felsőmonostor as published by Kálmán Szabó (Szabó, *Az alföldi magyar nép*).

Fig 103 The parish church of (Felső)Monostor as shown on the geophysical survey map of the site (Geophysical survey: Geoservice Kft, Endre Körmendy, 2011).

Fig 104 The archaeological topography of Monostor (drawn by the author).

Fig 105 The Alsómonostor Árpadian Age village site (aerial photo by Zsuzsa Miklós, 2002).

Fig 106 The Alsómonostor village site. The circle defines the site of the church. (aerial photo by Zsuzsa Miklós, 2002).

Fig 107 The Nagy-Zsombos area at Monostor (photo by the author).

Fig 108 The Felsőmonostor settlement area. The square un-ploughed feature in the middle of the ploughed area is the site of the monastic complex (aerial photo by Zsuzsa Miklós, 2002).

Fig 109 The mound which covers the ruins of the Felsőmonostor monastery (photo by the author).

Fig 110 The superposition of the graves of the eleventh century cemetery and the place of the later (removed) wall of the monastery at Felsőmonostor (photo by the author, 2011).

Fig 111 The vestry as revealed during the excavation in 2002 (photo by the author).

Fig 112 The excavation plan of the rescue excavation at Felsőmonostor in 2002.

Fig 113 A destroyed burial in the churchyard of the Felsőmonostor parish church (photo by the author, 2002).

Fig 114 Seal ring as found in situ among the destroyed graves (photo by the author, 2002).

Fig 115 The medieval village site at Felsőmonostor. The green circle stands for the site of the monastery. The larger, black line shows the extension of the Árpáadian village, while the smaller, red line depicts the late medieval settlement.

Fig 116 The late medieval village at Felsőmonostor (aerial photo by Zsuzsa Miklós, 2002).

Fig 117 The late medieval village at Felsőmonostor (aerial photo by Zsuzsa Miklós, 2002).

Fig 118 The modern village of Szentkirály, with the intensively cultivated fields around. (Google Earth).

Fig 119 Szentkirály in 1787; *Planum Exhibens Partem Vayanam Sz.Király, 1787*, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a. 1. Szentkirály 13).

Fig 120 Szentkirály in 1740. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086).

Fig 121 Szentkirály as depicted in 1793, on *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 122 Szentkirály in 1885, detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The overview of Kecskemét], 1885, by Gusztáv Rihocsek, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483).

Fig 123 Szentkirály as delineated on the Third Ordnance Survey (1872-1884).

Fig 124 Szentkirály in 1919. Detail from *Kecskemét t.h. város külső területének térképe* [The map of Kecskemét], 1919, by Tibor Kerekes, (Kecskemét: Municipal Archives of Kecskemét).

Fig 125 The overview map of András Pálóczi-Horváth's excavation at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*) Legend: 1: excavated settlement features; 2: settlement features localized through field survey.

Fig 126 The excavation area at Szentkirály in the period 2005-2008 (aerial photo by Zsuzsa Miklós, 2005).

Fig 127 The ground plan of the excavation between 2005-2008 (geodetic survey: Zsolt Viemann).

Fig 128 The archaeological topography of Szentkirály (after Pálóczi-Horváth, *A felsőszentkirályi kun sírlelet*).

Fig 129 Szentkirály in the network of regional road system, as delineated on the Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2). The circles defines deserted medieval village sites (drawn by the author).

Fig 130 The surface of the excavated street at Szentkirály (photo by the author, 2005).

Fig 131 The cross section of the ditches along the northern part of the street; highlighted with circles, the surface of the road is shown with the arrows.

Fig 132 The crossing of the ditch along the street and the plot-boundary fence during excavation (photo by the author, 2005).

Fig 133 The section of the street with the refuse pit that was covered by the layers of the street (drawn by the author, 2005).

Fig 134 The section of the street, with the pit found as buried by the road (after rain, photo by the author).

Fig 135 The church ruin of Szentkirály in the 19th century (after Pálóczi-Horváth, *A Lászlófalván 1969-74. években végzett*).

Fig 136 The ground-plan of the Szentkirály church (after Pálóczi-Horváth, *A Lászlófalván 1969-74. években végzett*).

Fig 137 Excavated features south of the road. Legend: 1: building (barn?); 2: firehaed platform of an oven; 3: deposits of stone; 4: fence or ditch dividing plots; 5: ditch-system parallel to the street; 6: surface of the street.

Fig 138 The refuse pit filled with unprocessed lime stones (photo by the author 2005).

Fig 139 External oven and the series of postholes of the nearby building (barn?) (photo by the author 2005).

Fig 140 The details of the features excavated north of the street. Legend: 1: surface of the street; 2: fence; 3: sty; 4: detail of a house; 5: detail of a house; 6: well; 7: cellar; 8: modern water-conduit (photo by the author 2005).

Fig 141 House during excavation (indicated on the previous figure as Nr 4) (photo by the author, 2007).

Fig 142 The foundation ditches of the house (photo by the author, 2007).

Fig 143 The sty during the excavation (photo by the author, 2006).

Fig 144 The well during the excavation (photo by the author, 2007).

Fig 145 The cellar during the excavation (photo by the author, 2008).

Fig 146 Main urban settlements in Hungary in the 15th century (drawn by the author after Bácskai, *Mezővárosok* and Kubinyi, *Városhálózat a késő középkori Magyarországon*).

Fig 147 Market zones in the Great Plain Region (after Kubinyi, *Városfejlődés és vásárhálózat*).

Fig 148 Central places in the great Hungarian Plain (drawn by the author after Bácskai, *Mezővárosok* and Kubinyi, *Városfejlődés és vásárhálózat*).

Legend: the colors represent categories of urban function as defined by Professor Kubinyi: red: primary urban centers; pink: major urban centers, important ecclesiastical and administrative centers; purple: smaller towns and significant market towns with remarkable urban functions; green: central places with limited urban functions; blue: villages resembling market towns.

Fig 149 The modern layout of Pásztó, showing those building, in which medieval cellars were identified (after Valter, *Mezővárosi kutatások*).

Fig 150 The ground plan of Debrecen in the late medieval period (as accessed from: <http://mek.niif.hu/02100/02152/html/04/7.html>).

Fig 151 The reconstructed layout of Gyula in the late medieval period (after Blazovich, *Dél alföldi városok*).

Fig 152 Urban settlements in the Danube-Tisza Interfluve Region (drawn by the author).

Fig 153 The schematized picture of the traffic routes in the Great Plain Region (drawn by the author based on the 1834 county map).

Fig 154 Count István Koháry (1649-1735), the landlord of Kecskemét from 1702.

Fig 155 Kecskemét on the *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, Samuel Mikoviny (Budapest: Map Collection of the Institute of Military History; accessible at: http://mek.niif.hu/06400/06422/html/top_megye/megye5.htm).

Fig 156 Kecskemét and the surrounding territory in 1740. Detail from the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740 (Budapest: National Széchenyi Library of Hungary. TK 1086).

Fig 157 Kecskemét, detail from *Accurata delineatio situm seu cubitum viae postalis, ac una commercialis quae inter oppida Kecskeméth et Félegyháza intercedit una cum punctis illis, in quibus in quaestione existentia loca physica nimirum verum situantur repraesentans* by Antonius Balla, before 1788 (Budapest: National Archives of Hungary, S 12 Div XVIII No 0023).

Fig 158 Kecskemét as depicted on the county map in 1793. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793 (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 159 Kecskemét in 1834. Detail from *Pest-Pilis és Solt törv. egyesült Vármegyék és a Kis Kúnság Föld Képe* (Budapest: National Archives of Hungary, S12 Div 11 No 89).

Fig 160 Kecskemét on the First Ordnance Survey in 1783.

Fig 161 The Kápolna Street in 2012 (photo by the author).

Fig 162 The Szentlőrinci Street in 2012 (photo by the author).

Fig 163 The Csongrádi Street in 2012 (photo by the author).

Fig 164 The Halasi Street in 2012 (photo by the author).

Fig 165 The Vásári Street (today: Petőfi Street) in 2012 (photo by the author).

Fig 166 The Mária Street from the north in 2012 (photo by the author).

Fig 167 The Mária Street from the south in 2012 (photo by the author).

Fig 168 The Budai Street in 2012 (photo by the author).

Fig 169 The Szolnoki Street in 2012 (photo by the author).

Fig 170 Identified late medieval streets and the parish churches of Kecskemét (drawn by the author).

Fig 171 The hypothesized extension of the medieval town (drawn by the author)

Legend: black: hypothesized extension of the town in the late medieval period; blue: the two medieval settlement cores; red: Vásári Street; green: Gyümölcs Street; yellow: eighteenth century settlement phase.

Fig 172 The centre of Kecskemét in 1929. Detail from *Kecskemét törvényhatósági jogú város térképe* [The map of Kecskemét], 1929, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét).

Fig 173 The former course of the town ditch, today Széchenyi körút (photo by the author).

Fig 174 The site of the Budai Gate, today a significant traffic junction (photo by the author).

Fig 175 The site of the Homoki Gate at the end of Kápolna Street (photo by the author).

Fig 176 The site of the Sandy Chapel on Szabados Kecskemét Várossának az 1819dik esztendőben Április 2dik napján történt gyulladás alkalmatosságával meg égett részét előterjesztő eredeti Mappa [The delineation of those parts of Kecskemét, which were burnt down in 1819], 1819, by Pál Battyány, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a 41, Kecskemét 355).

Fig 177 The site of the Sandy Chapel on a modern 1:10000 cadastral map.

Fig 178 The site of the Sandy Chapel in 2012 (photo by the author).

Fig 179 The Sandy Chapel on the millers' guild letter (1848, detail; after Enzt-Genton-Szapannos, *Kecskemét*).

Fig 180 The Sandy Chapel on the weavers' guild letter (1848, detail; after Enzt-Genton-Szapannos, *Kecskemét*).

Fig 181 The ground plan of the Saint Nicholas church with the Franciscan Friary (after Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásatásról*).

Fig 182 The Saint Nicholas Parish Church today, with the Saint Anthony Chapel (photo by the author).

Fig 183 The medieval wall of Saint Nicholas' Nicholas' with the remains of St Michael' Chapel (photo by the author).

Fig 184 The Calvinist church at Kecskemét (photo by the author).

Fig 185 Observant Franciscan Friaries in Hungary (designed by Beatrix Romhányi, drawn by Endre Egyed; as accessed from <<http://mek.oszk.hu/01900/01918/html/index1286.html>>).

Fig 186 The Franciscan Friary at Kecskemét (photo by the author).

Fig 187 Detail from *Mappa Regni Hungariae demonstrans universas caesareo regias salis stationes. Regis Hungariae, Croatiae, Schlavonia, magni item Principatui Transilvaniae ingremiatis, Posonii, dating from 1773, showing a salt trade route between Szeged and Buda through the Great Plain* (Budapest National Széchenyi Library; as accessed from: <<http://www.oszk.hu/terkepgaleria>>).

Fig 188 The "Só út" [Salt road] , detail from Kecskemét t.h. város külső területének térképe [The outer territories of Kecskemét], by Tibor Kerekes, 1919, (Kecskemét: Municipal Archives of Kecskemét).

Fig 189 The market connections of Kecskemét (drawn by the author).

Fig 190 The market square around 1790. Detail from Kecskemét 3. tizedének felmérése [The topographic survey of the third district of Kecskemét] (Kecskemét: Municipal archives of Kecskemét XV. 1. a. 0001).

Fig 191 The market place in 1860. Detail from the map Kecskemét kövezeti vázlata [The delineation of Kecskemét's pavements], (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. 437).

Fig 192 The market place in 1929. Detail from Kecskemét törvényhatósági jogú város térképe [The map of Kecskemét], 1929, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét).

Fig 193 The Vásártér [The fair-field], cca. 1800, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét , BKML XV. 1/a, 5. téka, 136/a).

Fig 194 Vásárállás, Serház, Kecseházi Fogadó és Kápolna felmérése [The delineation of the Fair-field, Serház, Kecseház Inn and the Chapel], cartographer unknown, 1806, (Kecskemét: Bács Kiskun Megyei Levéltár, XV. 16a 53. téka 136).

Fig 195 The Vásártér [Fair-field] in 1885. Detail from Kecskemét szabad királyi város területének átnézeti térképe [The overview of Kecskemét], 1885, by Gusztáv Rihocsek, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483).

Fig 196 The Vásártér [Fair-field] in 1905. Detail from Kecskemét Törv. Hat. Város térképe [The map of Kecskemét], by Gusztáv Rihocsek, 1905, (Kecskemét: Municipal Archives of Kecskemét).

Fig 197 The former Cédulaház (today Museum of Ethnography) in 2012 (photo by the author).

Fig 198 The Vásártér area [Fair-field] in 2002.

Fig 199 The Vásártér area (photo by the author).

Fig 200 The fourteenth century seal of the town (Sigillum civitatis de Kechkemeth) (after H.Kolba, *Sigillum civitatis de Kechkemeth*).

Fig 201 The seal of Kecskemét from 1646 (after Entz-Genthon-Szapannos, *Kecskemét*).

Fig 202 The old Town hall as represented on a drawing from the 1870s. The town hall is at the left side, encircled two-storey building behind the sentry-box (after Entz-Genthon-Szapannos, *Kecskemét*).

Fig 203 The medieval tower as built into the complex of the Franciscan Friary (photo by the author).

Fig 204 The seal of the furriers's guild from 1591 (after Entz-Genthon-Szapannos, *Kecskemét*).

Fig 205 Szarvas-tó as it is represented in 1793. Detail from Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 206 The 'farkasakazthokurtuel' as represented in 1750. Detail from Delineatio Territorii Oppidi Cegléd, by Michael Ruttkay, 1750, (Budapest: National Archives of Hungary, S 12 Div I No 0057).

Fig 207 A series of mapped boundary marks, probably earth heaps, along the northern border of Ágasegyháza, in 1834 Detail from the cadastral map of Ágasegyháza, 1834, author unknown, (Kecskemét: Municipal Archives of Kecskemét, Ágasegyháza 001).

Fig 208 Kecskemét and its neighbours (after Szabó, *Az alföldi magyar nép*).

Fig 209 The leased deserted village lands of Kecskemét around the mid-sixteenth century with the inhabited villages recorded in the sixteenth century defters.

Fig 210 The pusztá-empire of Kecskemét in the seventeenth century (Drawn by the author).

Fig 211 The boundary of Kecskemét in 1885 (Drawn by the author).

Fig 212 The triple border of Lajos, Nagykőrös and Kecskemét as represented in 1793. detail from Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth by Antonius Balla (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 213 The triple border at the borders of Kecskemét, Lajos and Kőrös today (<<http://www.petofiturakor.hu/2009/hatarjaras-nagykoros.html>>).

Fig 214 Stone pillar and earth heap along the border between Kecskemét and Lajos (<<http://www.petofiturakor.hu/2009/hatarjaras-nagykoros.html>>).

Fig 215 The common boundary of Bugac and Móricgáttya in 1783. Detail from *Mappa Predii Monostor, 1783*, author unknown (Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1. Bugac 20).

Fig 216 The triple border of Szentkirály, Borbásszállás and Kőrös with the *via magna* mentioned in 1354, leading towards Kőrös, (1), and the Kenyérvárohalom mentioned in the perambulation as *monticuumo wlgo holm* (2), as depicted in 1885.

Fig 217 Photo of the Hármashatár [Triple Border] at Monostor (photo by the author).

Fig 218 Sylva Chokas and Mindszent (identical with Borbásszállás) between Kecskemét and Kőrös as represented in 1740. *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740 (Budapest: National Széchenyi Library of Hungary. TK 1086).

Fig 219 Chederhamca, represented as Csödöri szőlőhegy [Csödör vineyards] as represented on the Second Ordnance Survey (1806-1869).

Fig 220 Farmstead near Bugac in the 1930s (Postcard).

Fig 221 Farmsteads on the Second Ordnance Survey at Kecskemét (1806-1869).

Fig 222 Asymmetrical ploughshare from the environs of Kecskemét (József Katona Museum, after Balassa, *A szántás és az eke*, 273).

Fig 223 Asymmetrical ploughshare with Griessäule-holes from Bugac, late 16th century (József Katona Museum (after Balassa, *A szántás és az eke*, 273).

Fig 224 Arable fields, among the shifting sand dunes south of the Kecskemét, as represented on the First Ordnance Survey (1780-1784).

Fig 225 The inner zone of arable fields around Kecskemét in 1770. Detail from the The cadastral map of Kecskemét, cartographer unknown, 1770 (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a Kecskemét 0005).

Fig 226 The “islands” of arable fields at near Szabadszállás at Bábony pusztá in 1796. Detail from *Mappa Faciem Telluris praecipue ab aggeribus Publicis Dömsödiensibus usque Possessionem Akasztó cum plagis naturaliter depressis ac una Stagnosis tam in Comitatu Pestiensi quam et Districtus Cumaniae Minoris Situatis*, by Antonius Balla, 1793 (Budapest: National Archives of Hungary, S 12 Div XIII No 0584:2).

Fig 227 The church ruin and the ‘island of arable fields around it, on the cadastral map Ágasegyháza from 1834 (Kecskemét: Municipal Archives of Kecskemét).

Fig 228 The church ruin at Szentlőrinc, surrounded by the Telek [Plot], which is *plaga falcari solita arabilis* according to the map. Detail from the cadastral map of Szentlőrinc, from 1788 (Kecskemét: Municipal Archives of Kecskemét).

Fig 229 Winter stalls near Debrecen in 1935 (<<http://mek.niif.hu/02100/02115/html/img/1-56.jpg>>).

Fig 230 The modell of transhumance in the eighteenth-nineteenth century.

1: floodplain 2: non-flooded elevations 3: stock of animals 4: the direction of transhumance.

Fig 231 The extensive pasture (*Pascuum*) around Kecskemét as represented in 1770 on the cadastral map of Kecskemét, cartographer unknown, 1770 (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a Kecskemét 0005).

Fig 232 The *Templom széke*, *Len áztató* and the *Sombos rét*, detail from *Mappa Predii Monostor*, 1783, author unknown (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20).

Fig 233 The *Templom széke*, *Len áztató* and the *Sombos rét*, detail from *Mappa Predii Monostor*, author unknown, 1783 (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20).

Fig 234 The *Közlegelő* and the *Telelő* at Bugac in 1885 Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The map of Kecskemét], by Gusztáv Rihocsek, 1885 (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483).

Fig 235 The *Talfája Wood* on the First Ordnance Survey (1780-1784).

Fig 236 The *Nyír Wood* around 1830. Detail from the map *Kecskemét külterületi felmérése* [The survey of the boundary of Kecskemét], author unknown, 1830 (Municipal Archives of Kecskemét, XV. 1/a Kecskemét 359).

Fig 237 The relicts of the oak forest at the boundary of Kecskemét, *Cegléd* and *Nagykőrös*, as represented in 1793. Detail from *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, 1793 (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

Fig 238 The *Szentkirály wood* as represented in 1787. Detail from *Planum Exhibens Partem Vayanam Sz.Király*, 1787, cartographer unknown (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a. 1. Szentkirály 13).

Fig 239 The *Szentkirály wood* in 1885 Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The map of Kecskemét], by Gusztáv Rihocsek, 1885 (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483).

Fig 240 The place of the *Szentkirály Wood* as shown on a recent aerial photo. The former extension of the wood is clearly visible as borderlines of cultivation fields

Fig 241 The *Szentlőrinc Wood* in 1788. Detail from the cadastral map of Szentlőrinc, 1788, author unknown (Kecskemét: Municipal Archives of Kecskemét).

Fig 242 The vineyards as represented around 1788. Detail from the *Accurata delineatio situm seu cubitum viae postalis, ac una commercialis quae inter oppida Kecskeméth et Félegyháza intercedit una cum punctis illis, in quibus in quaestione existentia loca physica nimirum verum situantur*

repraesentans, by Antonius Balla, c.1788 (Budapest: National Archives of Hungary, S 12 Div XVIII No 0023).

Fig 243 The vineyards of Kecskemét as represented on the First Ordnance Survey (1780-1784).

LIST OF TABLES

Table 1 The estimated measures of settlement desertion due to the Mongol Invasion (after Györffy, Magyarország népessége a honfoglalástól a 14. század közepéig).

Table 2 The proportion of tofts as recorded in the socage contract of Mizse and Lajos in 1567 and 1577 (after Bende-Kürti, Bene, Lajos és Mizse oklevelei, 67-68, 72-75).

Table 3 The ethnic affiliation and status of late medieval settlements in the study area between 1350 and 1590. The table is based on the Appendix of the present thesis entitled The late medieval topography of villages around Kecskemét. The words in brackets mean that the definition was deduced from indirect or non-written data (such as archaeological and/or hypothesized data).

Table 4 Number of family heads as recorded by the Ottoman defters (after the data by Káldy-Nagy, A budai szandzsák 1546-1590).

Table 5 Increase of numbers of oppidae as reflected by the first documentary references.

Table 6 The central places in the Great Plain Region, with their centrality points, as suggested by András Kubinyi (after the data by Kubinyi, Városhálózat a középkori Kárpát-medencében).

Table 7 Pre-modern streets in Kecskemét.

Table 8 Number and type of crafts at Kecskemét in 1559 (after Káldy-Nagy, A budai szandzsák 1559, 173-177).

Table 9 The proportion of craftsmen in the urban settlements of the Danube-Tisza Interfluvial Region (after Mészáros, Kecskemét gazdasági élete és népe, 99).

Table 10 Archaeological finds connected to agriculture.

Table 11 The cereal taxes of Szentkirály as recorded in the Ottoman defter rolls (after Káldy-Nagy, A budai szandzsák 1546-1590, 570-571).

Table 12 The tenurial revenues of Kecskemét and the deserted lands used by the town.
Red: 1546, Blue: 1559, Green: 1562.

Table 13 The taxes of Kecskemét in 1546 and 1562 (after Káldy-Nagy, A budai szandzsák 1546-1590, 349).

1. INTRODUCTION

Landscape, as a new way of approaching society, settlement and economy has become one of the main focal points of scholarly discussions in recent decades. The majority of scholars hold the view that landscape communicates important relationships between natural processes and human settlement practices.¹ Consequently, there are numerous approaches to investigating how people looked at and perceived landscapes in the previous centuries or decades. The present dissertation focuses on the changing landscape of settlements in the Danube-Tisza Interfluvial Region, located in the Great Hungarian Plain. More directly, the study aims at presenting the process of development of how the network of late medieval villages and market towns emerged, and how this pattern was replaced slowly by a few nuclei of market towns surrounded by an abundance of isolated farmsteads by the late eighteenth century. My interest in the landscape history and archaeology of this region dates back to 2001, when I studied the medieval history and topography of the Monostor estate, south of Kecskemét in the framework of my MA Thesis. In that essay I used the Monostor estate as a test area to demonstrate how methods of landscape archaeology work, in what forms and to what extent they can be used. The success of this small-scale investigation directed my attention to a more general problem of how medievalists in general approach the study of settlement history in this region.

Settlement history and especially the development of various settlement forms are among the old-established research fields in Hungary; beside historical, geographical and ethnographical studies, archaeology played an active role in the study of settlement systems from the first decades of the twentieth century.² In particular ethnography influenced the pioneering archaeological surveys of medieval rural settlements from the 1920s.³ For instance the earliest targeted investigation of deserted medieval villages in the Great Plain region was initiated by Kálmán Szabó, the renowned ethnographer who interpreted his findings in the context of ethnographic parallels as

¹ Martin, Gojda, "Archaeology and landscape studies in Europe: approaches and concepts", in Timothy Darvill and Martin Gojda, eds, *One Land, Many Landscapes: Papers from a session held at the European Association of Archaeologists Fifth Annual Meeting in Bornemouth 1999*, (BAR International Series 987, Oxford: Archeopress, 2001), 9-19.

² Alajos Bálint, "A mezőkovácsházi település emlékei" [Finds from the medieval settlement at Mezőkovácsháza] *Dolgozatok* 15(1939): 146-164.; Alajos Bálint, A középkori Nyársapát lakóházai [Medieval houses at Nyársapát] *Móra Ferenc Múzeum Évkönyve* (1963): 39-115; Márta Széll, "Elpusztult falvak, XI-XVI. századbeli régészeti leletek Csongrád vármegye területén" [Deserted villages and archaeological finds from the eleventh to sixteenth centuries from Csongrád County], *Dolgozatok* 17(1941): 169- 173; Márta Széll, "Elpusztult falvak, XI-XVI. századbeli régészeti leletek Szentes határában" [Deserted villages and archaeological finds from the Szentes area, from the eleventh to sixteenth centuries], *Dolgozatok* 19 (1942): 128- 132; Lajos Zoltai, *Települések, egyházas és egyháztalan falvak* [Settlements, villages with or without churches], (Debrecen: Debrecen Szabad Királyi Város és a Tiszántúli Református Egyházkerület Könyvnyomda-vállalata, 1920.); Lajos Zoltai, *Debreceni halmok, hegyek, egyéb mesterséges és természetes emelkedések* [Mounds, hills and other artificial and natural peaks in the Debrecen area], (Debrecen: Városi Nyomda, 1938).

³ István Györffy, *Magyar falu, magyar ház* [Hungarian village, Hungarian house], (Budapest: Turul Kiadás, 1943); Zsigmond Bátky, "Építkezés" [Building techniques], in: *A magyarság néprajza, vol. 1: A magyarság tárgyi néprajza*, written by Zsigmond Bátky, István Györffy and Károly Viski, (Budapest: Királyi Magyar Egyetemi Nyomda, 1943).

early as 1938; still his results are being considered up to now as part of the relevant archaeological literature.⁴ His concept was to present the elements of the villagescape and the material culture of the inhabitants from the Árpadian Period until the late sixteenth century demonstrating patterns and the transformations in the system as a continuous process of expansion and regression. This research attitude is also recognizable in the works of Ferenc Maksay and István Szabó, who published excellent summaries on the development and morphology of medieval villages of Hungary some thirty years later.⁵ Although they based their surveys on the thorough collection and analysis of medieval documentary sources, they included the contemporary results of settlement archaeology in their discussion, such as the excavation results of István Méri.⁶ The publications on medieval forms of land management and agricultural production by Márta Belényesy are further significant contributions to the study of medieval rural Hungary from that period.⁷ The modern historical and archaeological surveys of medieval rural Hungary greatly contributed to these results by, for example, providing accurate methodology of excavations and offering proper frameworks for dating artifacts and development processes, but at the same time lost the “holistic” approach of the earlier scholarship, and no such comprehensive summaries had been written on rural landscapes of medieval Hungary until today. The modern archaeological study of settlements, influenced by the frameworks of historical research, broke up to the specialized time frames of the Árpadian Age (tenth to thirteenth century), the late medieval (fourteenth century until 1526) and the Ottoman periods (1526-1686).⁸ Especially the Ottoman Occupation Period is represented as a strikingly

⁴ Kálmán Szabó, *Az alföldi magyar nép művelődéstörténeti emlékei. Kulturgeschichtliche Denkmäler der Ungarischen Tiefebene*, Bibliotheca Humanitatis Historica III, (Budapest: Országos Magyar Történeti Múzeum, 1938); László Papp, “Ásatások a XVI. században elpusztult Kecskemétvidéki falvak helyén: Adalékok a magyar ház és kemence történetéhez” [Excavations at deserted villages in the Kecskemét area: data on the development of the Hungarian house and oven], *Néprajzi Értesítő* 23 (1931): 137-152.

⁵ Szabó, István. *A falurendszer kialakulása Magyarországon, X-XV. század* [The development of the villages in Hungary from the tenth to the fifteenth century]. Budapest: Akadémiai Kiadó, 1966. Szabó, István. *A középkori magyar falu* [The villages of Hungary in the Medieval Period]. Budapest: Akadémiai Kiadó, 1969. Maksay, Ferenc, *A magyar falu középkori településrendje* [The morphology of the medieval villages in Hungary]. Budapest: Akadémiai Kiadó, 1971.

⁶ István Méri, *Népi építkezésiünk feltárt emlékei Orosháza határában* [The excavated remains of rural architecture in the boundary of Orosháza]. Régészeti Füzetek 2, (Budapest: Magyar Nemzeti Múzeum, 1964).

⁷ Her most important contributions: Márta Belényesy, “Le serment sur la terre au moyen âge et ses traditions postérieures en Hongrie.” *Acta Ethnographica* 4 (1955): 361-363; Márta Belényesy, “Angaben über die Verbreitung der Zwei- und Dreifelderwirtschaft immittelalterlicher Ungarn” *Acta Ethnographica Academiae Scientiarum Hungaricae* 5 (1956): 183-188; Márta Belényesy, “Der Ackerbau und seine Produkte in Ungarn in XIV. Jahrhundert.” *Acta Ethnographica Academiae Scientiarum Hungaricae* 6 (1958): 265-321; Márta Belényesy, “La culture temoraire et ses variants en Hongrie au XVe siècle.” *Ergon* 2 (1960): 311-326.; Márta Belényesy, “La culture temoraire et ses variants en Hongrie au XVe siècle.” *Ergon* 2 (1960): 311-326; Márta Belényesy, “Vieh- und Hirtenwesen in Ungarn im 14. und 15. Jahrhundert.” In: *Viehzucht und Hirtenleben in Ostmitteleuropa : ethnographische Studien*, edited by László Földes, Budapest: Akadémiai Kiadó, 1961; Márta Belényesy, “Hufengröße und Zugtierbestand der Kläuberlichen Betriebe in Ungarn im 14-15. Jh.” In: *Viehwirtschaft und Hirtenkultur: Ethnographische Studien*, edited by László Földes, Budapest: Akadémiai Kiadó, 1969, 460-502

⁸ Here I would like to shortly mention the names of some scholars who contributed to the study of medieval rural settlements: István Méri, Júlia Kovalovszki, Imre Holl, Nándor Parádi, András Pálóczi-Horváth, Elek Benkő, László Selmeczi, József Laszlovsky, Miklós Takács, Tamás Pusztai and György Terei. The historiography of rural settlements will be discussed in details in *Chapter 4*.

different, individual period as almost all recent historical and archaeological surveys that address issues relating to the medieval kingdom of Hungary close with the fateful defeat at Mohács in 1526. Such sharp, well-defined changes are rarely identifiable in archaeology and settlement history. In my opinion, the transformations in the settlement pattern can be mostly detected as long-term tendencies, or processes, which are strongly interconnected not only with socio-economic changes and special historical situations, but also varying ecological factors. Thus, one of the main ambitions of my dissertation is to break these theoretical frameworks, and find a context that makes sense of the changes in terms of settlement history, and can be related more closely to my study area in the Great Plain Region. Accordingly, I decided to tackle the period from the late thirteenth-fourteenth century till the late seventeenth century, that is, from the formation of the late medieval nucleated villages and the emergence of market towns until the desertion of medieval villages and the formation of the isolated farmstead system in the seventeenth century. In this way my dissertation intends to continue the complex view of those studies by Kálmán Szabó, Ferenc Maksay, Istvány Szabó and Márta Belényesy but, of course represented in a modern, interdisciplinary context and methodological framework.

In addition, there is an increasing international interest complex comparative research and review of rural settlements the last decades.⁹ My investigations are strongly influenced by the recent European, in particular Anglo-Saxon research trends in landscape studies, which produced a remarkable series of studies that integrate field-walking, aerial photography and the analysis of historical maps and documents.¹⁰ In that way, my dissertation intends to connect the results of Hungarian scholarship to that of current European settlement studies and provide material for further comparative studies. I intend to use the study area in the Danube-Tisza Interfluvium region to demonstrate that by applying interdisciplinary methods it is possible to understand and interpret the development of rural settlement network in medieval Hungary.

The study area for the present dissertation is situated around Kecskemét, the largest market towns in the central part of the Danube-Tisza Interfluvium Region, where all village lands had become deserted and incorporated into market town property by the mid-seventeenth century (Fig 1). In the framework of the present dissertation, I have reviewed various aspects of settlement history. My primary focus was to demonstrate how the landscape has changed in character throughout the medieval period. This proposed objective requires the comprehensive knowledge of available

⁹ Among the several international organizations for enhancing the discussion about medieval Europe RURALIA is the association which is “a specialized colloquium of current problems in rural archaeology from most participating European countries to strengthen the exchange of knowledge in, and the development of, archaeologically comparable studies, and to make archaeological results available to other disciplines.” See: < <http://www.ruralia.cz/> >.

¹⁰ Stephen, Rippon, “Understanding the medieval landscape”, in: *Reflections: Fifty Years of Medieval Archaeology*, edited by Roberta Gilchrist and Andrew Reynolds (Leeds: Society for Medieval Archaeology, 2009), 227-255.

documentary material and conscious research strategy which I describe in Chapter 2. Landscape history, which is the wider framework of my dissertation, mainly focuses on the man-made traces as preserved in the landscape. This specific source, when read with sharp and critical eyes, may often substitute missing written evidence. Thus I dedicate Chapter 3 to the natural environment of the study area in order to familiarize the reader with the elements of the modern landscape and those factors that played an important role in the formation of the ecological conditions. The next four chapters (Chapters 4-7) concern the landscape of settlements. In that context in the first place I investigate the settlement pattern: hierarchy, dispersion, nucleation as well as desertion of sites. My research questions are the following:

- How can one classify late medieval settlements in terms of their hierarchy and distribution pattern in the central part of the Danube-Tisza Interfluvium Region?
- How central functions were distributed within the settlement system, and how did these influence processes of nucleation and urbanisation?
- In what way did the immigration and settlement of the Cumans influence or affect the development?
- What were the main phases of settlement expansion and desertion in the study region?
- How did the Ottoman occupation of the area influence the settlement network?
- Were there any non-anthropogenic features behind the changes in the settlement network?

In line with interpretation of the development of settlements I put special emphasis on the morphology of the most typical settlement forms within the study area, namely market towns, villages and isolated farmsteads. During the discussion I raise the following issues:

- What do we know about the inner structure of medieval rural settlements?
- What were the main elements of the town/village plan?
- Are there features in their layout that can be interpreted as continuous traits?

In the third part of the dissertation I present a detailed picture of land use, with a special focus on agrarian production that tackles expansion and regression in this context. The most important queries include:

- What can be assessed about the medieval and early modern land management and field systems around Kecskemét?
- To what extent is it possible to outline or reconstruct those environmental factors that influenced economic production?
- Are there any continuous elements in today's landscape that reflect the medieval or the early modern period?

- In what way was the economic production of Kecskemét interconnected with the deserted village lands?
- How did the changing frameworks of economic production affect the regional settlement system?

In this study my primary focus are settlements. The road system, as the basic framework and background in terms of communication and access between communities is considered throughout the dissertation, however not handled separately. The discussion is supported by three main case studies. These sites, namely Kecskemét, Monostor and Szentkirály were chosen because they display representative development-models of the area. The case studies raise important questions concerning, for example, the desertion of medieval villages or the appearance of isolated farmsteads in relation to changes in land use. Besides, all three settlements are excellent examples to demonstrate how, and to what extent interdisciplinary approaches to various source materials contribute in a meaningful way to the perception of a region which is ranked among the most degraded and modified landscapes of Hungary.

I took part in several projects that facilitated the formation and the completion of the dissertation in terms of those settlements discussed as case studies. I carried out excavations at Szentkirály in cooperation and continuation of András Pálóczi-Horváth's previous work between 2004 and 2008. In addition, I performed field survey and excavation at Monostor in 2001 and 2002, and I participated in the MONATUR project of the Katona József Múzeum of Kecskemét aimed at the archaeological research of the medieval site at Felsőmonostor in 2011.¹¹ Moreover, I participated in the Historic Town Atlas project, and in the framework of this I prepared the volume on Kecskemét for publication.¹²

The collected historical, cartographic and archaeological data on the individual settlements mentioned in the dissertation is attached as Appendix I, while the most frequently cited historical maps are available in their original form and size as Appendix II on a separate CD ROM.

¹¹ The project was financed by the Hungary-Serbia IPA Cross-Border Cooperation Programme. About the project see: <<http://www.vojvodinaonline.com/download/Monatur%20ENG.pdf>>

¹² Katalin Szende, "Magyarország városainak történeti atlasza. Részvétel egy európai kutatási programban" [The historic Atlas of Hungarian Towns. Participation in a European research project] *Műemlékvédelem* 50 (2006) 228-232.

2. METHODS AND SOURCES

2.1 METHODOLOGICAL NOTE ON THE STUDY OF THE LANDSCAPE IN THE DANUBE TISZA INTERFLUVE REGION

During my studies I realized that discussions on the settlement history of the Danube-Tisza Interfluvial Region follow two main approaches. A significant strand relates to “local history”, which focuses on the development of a single defined settlement, usually based on literary and archival records, but sometimes supplemented with archaeological data. Historians tend to provide overviews based on the perceived settlement traditions of particular ethnic groups such as the Cumans, and discuss the development of various settlement forms, such as market towns and isolated farmsteads. Ethnography and human geography have also contributed to the discussions, with each discipline developing special approaches and methods to investigate various aspects of topography, and tending to trace the origins of modern, eighteenth-nineteenth century settlement forms in earlier periods.¹³ Such studies often try to understand pre-modern phenomena within an intellectual framework that applies methods that are principally devised for researching modern (nineteenth-twentieth century) features.

In contrast, the point of my thesis is to demonstrate how an interdisciplinary approach helps to clarify the situation for medieval settlement studies, regardless of the influence of historical analysis of contemporary sources, or the application of modern cultural study paradigms to historic cultural groups. The absence of written sources is not a grave challenge to the archaeologist, who can adopt a methodological framework that is principally focused on non-literate cultural remains. Such investigative techniques resemble those of the prehistorian who researches scarcely documented and entirely non-documented periods and regions. Accordingly, as a working hypothesis, I have imagined the pre-modern landscape of the Danube-Tisza Interfluvial Region as a “conceptual” or “virtual” landscape, and tried to adopt my approaches to this concept.

There are numerous methods in archaeological scholarship to describe various elements of landscape or land management practices of those communities, periods or regions, where written documents are completely missing.¹⁴ The foremost parameter of these studies is that data should be

¹³ Such as the development of isolated farmsteads (the ‘tanya’) or the agglomerated village forms (‘Haufendorf’).

The historiography of the ‘tanya’-studies was summarized by László Solymosi. László Solymosi, “A tanyarendszer középkori előzményeinek historiográfiája” [The historiography of the studies in the medieval origins of the isolated farmstead system], in: *A magyar tanyarendszer múltja: Tanulmányok*, edited by György Pölöskei and György Szabad, (Budapest: Akadémiai Kiadó, 1980), 71-96; The research on agglomerated village forms was recently reviewed by János Báth. János Báth, *Szállások, falvak, városok: a magyarság települési hagyománya* [Dwellings, villages, towns: the settlement traditions of Hungary], (Kálcsa: Kálcsai Múzeumbarátok Köre, 1996).

¹⁴ See e.g.: Helena Hamerow, *Early Medieval Settlements: The Archaeology of Rural Communities in North-West Europe*, (Oxford: Oxford University Press, 2002); Alex Woolf, ed., *Landscape and Environment in Dark Age Scotland*. (St. Andrews: The Committee for Dark Age Studies, University of St. Andrews, 2006).

interpreted in its own contemporary context. Accordingly, I have adopted the view that detected features might be compared with and contrasted with cartographic and/or written documents from other periods but they must not be routinely connected with these sources without strict critical parameters. In doing so, this thesis suggests a new approach to traditional research.

The use of historical data on past climatic events, along with palaeoecological and palaeoenvironmental sources and particularly those dealing with botanical and hydrological data helps to ensure that the discussion is more than a simple linear narrative of settlement history through time. Such multi-disciplinary research is typical of landscape history and this has, defined the principal methodological basis of the present work so that the fundamental processes and causes of settlement development can only be understood within their own historical-ecological framework. Data is first assessed purely within the context of its own discipline and then the observations are discussed and examined within an interdisciplinary environment. This has led to a focus on methodology and a consideration of the usefulness of such approaches when studying a landscape that is described as hypothetical or non-existing.

How possible is it to reconstruct the various layers of this “virtual” or “buried” landscape? How can the results be correlated, contrasted or connected to modern settlement patterns? The model for my research is based in part on methodologies that are becoming current across Europe.¹⁵ It remains important for research in Hungary to be studied and understood within this wider context. Particular issues have in the past suggested that such understanding would be problematic. The large-scale structural changes in the landscape and the introduction of the heavy machinery in agriculture during the twentieth century are examples that have been advanced to explain the absence of wider coordination with mainstream European studies.¹⁶ The Danube-Tisze Interfluvial Region (and the whole Great Plain) is usually considered to be among the most transformed landscapes of the Carpathian Basin, where, only the small fragments or some unique elements of the past landscapes are visible, and sometimes it is hard or impossible to connect the documented features to documentary sources, which makes the interpretation of the landscape elements limited or hypothetical. It is my contention that these issues are no insuperable. The generation of new data can help to overcome these challenges but to do so it must be done within a methodological environment that is open and wide-ranging in tune with current thinking outside Hungary.

¹⁵ Some of the current literature includes: Terry Barry, *The Archaeology of Medieval Ireland*, London: Routledge, 2004; Terry Barry, *A History of Settlement in Ireland*, Abingdon: Routledge, 2011; Graeme J. White, ed., *The English Medieval Landscape 1000-1500*, London: Bloomsbury, 2012; *Medieval Landscapes: Landscape History after Hoskins*, edited by Mark Gardiner and Stephen Rippon, vol. 2, Oxford: Windgather Press, 2007; *Shaping medieval landscapes: settlement, society, environment*, edited by Tom Williamson, Oxford, Windgather Press, 2004.

¹⁶ See József Laszlovsky, “Field Systems in Medieval Hungary,” in *...The Man of Many Devices, Who Wandered Full Many Ways... Festschrift in Honor of János M. Bak*, edited by Balázs Nagy and Marcell Sebök, (Central European University Press, 1999), 432-444.

In my thesis I have tried to bridge the divide between traditional approaches and innovation. I have produced new data by field-walking and excavation, during which surveys aerial photographs were taken and geophysical surveying was done. I have also reinterpreted available documentary sources, such as Ottoman tax rolls, and I have considered pollen data within the context of reconstructing land management systems. Moreover, I have involved special approaches to characterize pre-modern land use with the help of available pollen data for pre-modern ecology. It is a commonly applied tool in Anglo-Saxon scholarly studies,¹⁷ but it is not so widely used for that purpose in Hungarian scholarship.

Since the various source types are a vital part of the discussion in this dissertation, it is important to introduce and describe in detail the different kinds of data that were used during the work, with special attention to the question what information can be derived and for what purpose it can be used. There are four principal groups of primary source material that inform this research, namely: contemporary written documents; contemporary illustrated material and principally cartographic sources, palaeoenvironmental research; and material culture, including aerial photographic sources, field survey data and excavation records.

2.2 WRITTEN SOURCES

The most important records are the contemporary written documents, preserved as archived materials, and generally referred as “charters” in Hungarian scholarly usage.¹⁸ In contrast to other parts of Europe, it is recognized that the Hungarian source material is very scarce.¹⁹ The loss of the Royal Archives of the medieval kingdom, and the destruction of smaller ecclesiastical as well as private collections had a major effect on the quantity and nature of materials available for study today. The majority of surviving documents are particularly suitable for researching issues of

¹⁷ Some relevant literature includes: Per Lagerås, *The Ecology of Expansion and Abandonment: Medieval and Post-Medieval Agriculture and Settlement in a Landscape Perspective* (Stockholm: National Heritage Board, 2007); Manfred Rösch, “New approaches to prehistoric land-use reconstruction in southwestern Germany” *Vegetation History and Archaeobotany* 5 (1996): 65-79; Manfred Rösch, “The history of crops and crop weeds in south-western Germany from the Neolithic period to modern times, as shown by archaeobotanical evidence” *Vegetation History and Archaeobotany* 7(1998): 10-125; Anna Brostriim, Marie-José Gaillard, Margaretha Ihse and Bent Odgaard, “Pollen-landscape relationships in modern analogues of ancient cultural landscapes in southern Sweden - a first step towards quantification of vegetation openness in the past” *Vegetation History and Archaeobotany* 7 (1998): 189-201; Chris Caseldine, Ralph Fyfe and Kari Hjelle, “Pollen modelling, palaeoecology and archaeology: virtualisation and/or visualisation of the past?” *Vegetation History and Archaeobotany* 17 (2008): 543-549; Gill Plunkett, “Land-use patterns and cultural change in the Middle to Late Bronze Age in Ireland: inferences from pollen records” *Vegetation History and Archaeobotany* (2009)18: 273-295.

¹⁸ In the context of Hungarian historical scholarship, any piece of a written document that is legal in nature is termed a “charter”, irrespective of its issuer or content.

¹⁹ For this see e.g. Zsolt Hunyadi, “...scripta manent. Archival and Manuscript Resources in Hungary,” *Annual of Medieval Studies at CEU (1997-1998)*, 231-240, Katalin Szende, “The Uses of Archives in Medieval Hungary.” In: *The Development of Literate Mentalities in East Central Europe*, edited by Anna Adamska and Marco Mostert. Utrecht Studies in Medieval Literacy 9, (Turnhout: Brepols, 2004), 107-142; and Pál Engel, *The Realm of St Stephen: A History of Medieval Hungary 895-1526*. (London-New York: I.B. Tauris, 2001), XVIII-XIX.

administration or of land-owners and land-ownership, while economic and demographic conditions often remain obscure. This is especially true for the Interfluve Region, and for the town of Kecskemét, where several violent historic periods have led to the destruction of almost all written sources. In 1707, for example, it is reported that the town of Kecskemét was set on fire by Serbian (rác) troops, destroying large parts of the city and also the town hall, including the Archives, where all documents connected to the history of the town were kept. The surviving material was studied and published by János Hornyik in the second half of the nineteenth century, but even originals of these few sources disappeared (probably perished) in World War II.²⁰

The lack of primary source material is balanced to some degree by the publication of systematic, topography-orientated from the second half of the nineteenth century by leading scholars, whose books are still used today as basic handbooks. István Gyárfás, the first investigator of the Iasian and Cuman people in medieval Hungary, collected most of the documents mentioning these populations, or the territory they lived in.²¹ From about the same time several registers of charters were collected and published by László Bártfai-Szabó relating to the medieval Pest county.²² Dezső Csánki collected and published charters from the fourteenth and fifteenth centuries, on a topographical basis. Later, from the 1960s topographical encyclopedias of the Árpadian Period were published county by county by György Györffy.²³ In addition, there are more recent editions of the documentary sources of the region, and I have made great use of the medieval sources for Bene, Lajos and Mizse compiled by László Kürti and Gyula Benedek.²⁴ There are also certain documentary sources available online, including the Database of Archival Documents of Hungary <<http://mol.arcanum.hu/dldf/opt/a110505htm?v=pdf&a=start>>, and the Digital Library of Medieval Hungary <http://mol.arcanum.hu/medieval/opt/a101101.htm?v=pdf&a=start_f>, both of which are accessible in Hungarian and English.

There are special groups of documents within the larger corpus of charters that are especially suitable for topographical studies where it is possible to reconstruct settlement structure, road systems, land use or the physical environment. Among these are perambulations, boundary descriptions, donation or division charters, which are especially useful in this regard. Such

²⁰ János Hornyik, *Kecskemét város története oklevéltárral*, [The history of Kecskemét, with a gazetteer of documentary sources] (4 vols, Kecskemét: privately printed, 1860-1866).

²¹ István Gyárfás, *A jász-kunok története* [History of the Jazyg-Cumans], (4 vols, Kecskemét-Szolnok-Budapest: privately printed, 1870-1885)

²² László Bártfai-Szabó, *Pest megye történetének okleveles emlékei, 1002-1599* [The history of Pest county in documentary sources 1002-1599], (Budapest: n.n., 1938).

²³ György Györffy, *Az Árpád kori Magyarország történeti földrajza* [The historical Geography of Hungary in the age of the Árpáds], (4 vols, Budapest: Akadémiai Kiadó, 1963–1998).

²⁴ Gyula Benedek and László Kürti, *Bene, Lajos és Mizse oklevelei, történeti dokumentumai (1385-1877)* [Written documents about Bene, Lajos and Mizse, 1385-1877], (Cumania Könyvek 2, Kecskemét: Bács-Kiskun Megyei Önkormányzat Múzeumi Szervezete, 2004).

descriptive documents are often considered equivalent to modern maps, and provide the earliest descriptions of the landscape.²⁵

For the sixteenth and seventeenth century there is a unique group of sources which are the taxation documents of the conquering Ottomans, the so called defter-rolls, containing abundant data on the contemporary demographic as well as economic conditions. The first such tax-rolls were compiled in 1546, not long after the central part of the country was subdued. The Ottoman administration system prepared systematic surveys of the occupied territories, carefully documenting their strengths and weaknesses. Comprehensive lists were compiled on the population, and the presumed income-types, and the information was used as the basis for calculation the actual revenue tariff.²⁶ It has been demonstrated that the conquering Ottoman Empire adjusted their taxation to the system of the subdued countries.²⁷ In Hungary, an order issued by the Ottoman Emperor in 1545 states that the old laws of the Hungarian Kingdom were reviewed before the taxes were approved.²⁸ Consequently, it seems that the conquerors themselves basically did not interfere into the pre-Ottoman economic system. This suggests that the sixteenth-century defter rolls may reflect the preceding situation. The importance of the rolls for understanding the early modern economic features is frequently cited in scholarly literature, and these documents are primarily relevant for the understanding of the topographical development of the pre-Ottoman decades.²⁹ Due to the unique statistical data preserved in the defter rolls, they are traditionally employed in economic reviews or demographic studies. Since the defters contain data on various cultivated crops, whose types and proportions can be connected closely to the management of cultivated fields over time, I have attempted to see how relevant these tax rolls are as possible indicators of land use and landscape changes.

Another group of contemporary sources is the town protocols of Kecskemét.³⁰ The earliest fragments of such records survive from the 1590s, registering important information about the everyday life of the town, including data relating to the economy, references and descriptions of field systems, as well as land use. The town's own recording activity became more and more

²⁵ Márta Belényesy, "Le serment sur la terre au moyen âge et ses traditions postérieures en Hongrie" *Acta Ethnographica* 4 (1955): 361-363.

²⁶ It is important to note that these recorded sums were presumed incomes and there is no evidence what was actually levied or collected.

²⁷ Gyula Káldy-Nagy, *Harács szedők és ráják: Török világ a XVI. századi Magyarországon* [Tax collectors and serfs: Ottoman rule in the sixteenth century Hungary], (Budapest: Akadémiai Kiadó, 1970), 72; Pál Fodor, "Some notes on Ottoman tax-farming in Hungary" *Acta Orientalia Academiae Scientiarum Hungariae* 54 (2001): 427-435.

²⁸ Káldy-Nagy, *Harács szedők és ráják*, 71-73.

²⁹ Pál Engel, "A Drávántúl középkori topográfiája: a történeti rekonstrukció problémája" [The historical reconstruction of the medieval topography of Eastern Slavonia] *Történelmi Szemle* 39 (1997): 297-313.

³⁰ *A kecskeméti magisztrátus jegyzőkönyveinek töredékei I (1591-1711)* [The fragments of the town protocols of Kecskemét, 1591-1711], edited by Tibor Iványosi-Szabó, (vol 1, Kecskemét: Bács-Kiskun Megyei Önkormányzat Levéltára, 1996), henceforth referred to as MJ I; *A kecskeméti magisztrátus jegyzőkönyveinek töredékei II (1712-1811)* [The fragments of the town protocols of Kecskemét, 1591-1711], edited by Tibor Iványosi-Szabó, (vol 2, Kecskemét: Bács-Kiskun Megyei Önkormányzat Levéltára, 1998) henceforth referred to as MJ II.

specialized from the mid-seventeenth century; the first tax register originates from 1662,³¹ the earliest collection of wills dates back to the 1650s,³² while the book of town regulations is available from the 1640s, often referring to the old customary laws of the settlement.³³

The first narrative descriptions of the study area also date back to the Ottoman Period, when the famous story-teller Evliya Çelebi³⁴ and the Ottoman historian Kemal Pashazade briefly describe the area and Kecskemét.³⁵ More detailed descriptions appear from the eighteenth century. Educated intellectuals of this period published books on the geographical-historical conditions of the settlements and the country. The territory between the Danube and Tisza rivers was described in almost every work. They give detailed analysis of contemporary natural resources (hydrology, flora and fauna), economic life (industrial and agricultural production). They wrote about the past history and present state of the towns and villages, they often collected popular local legends, and they frequently mentioned church ruins or places of deserted settlements. The works of Matthias Bel (in Hungarian: Bél Mátyás), János Korabinszky, Dániel Cornides, Károly Szepesházi, Elek Fényes, and Frigyes Pesthy are all remarkable pieces of historiography.³⁶

2.3 TOPONYMS

The limited nature of available written records makes the study of linguistic evidence all the more important. The study of place names in particular plays an essential role in the surveys of settlements and landscape of medieval Hungary. Numerous settlements have vanished through the centuries, but many of them can be localized by reference to modern maps and by collecting surviving toponyms.³⁷ Since the present settlement structure within the research area hardly reflects any features from the pre-eighteenth century, the elements of former structures can often be revealed by place-names recorded on cartographic sources.

³¹ *Írott emlékek Kecskemét XVII. századi nyilvántartásaiból (1673-1700)* [Documentary sources from the town registers of Kecskemét (1673-1700)], edited by Tibor Iványosi-Szabó, (2 vols., Kecskemét: Bács-Kiskun Megyei Levéltár, 2008. [!2009]).

³² *Kecskeméti testamentumok I* [Last wills from Kecskemét: 1655-1767], edited by Tibor Iványosi-Szabó, (vol. 1. Kecskemét: Bács-Kiskun Megyei Önkormányzat Levéltára, 2002), henceforth referred to as KT I.

³³ *Kecskeméti Szabályrendeletek* (1659-1849) [Book of town regulations: 1659-1849], edited by Tibor Iványosi-Szabó, (Kecskemét: Bács Kiskun Megyei Levéltár, 1991).

³⁴ The famous book of the seventeenth-century world traveller Evliya Celebi, the *Seyahatname* [Book of Travels] is also available in English translation. See: *Narrative of travels in Europe, Asia, and Africa, in the seventeenth century, by Evliya Efendi*, trans. Ritter Joseph von Hammer (London: Oriental Translation Fund of Great Britain and Ireland, 1846); the most recent edition: *An Ottoman Traveller: Selections from the Book of Travels of Evliya Celebi*, translated and edited by Robert Dankoff and Sooyong Kim, (London: Eland, 2010)

³⁵ *Török Történetírók*, trans. and ed. József Thury, (vol. 3, Budapest: Magyar Tudományos Akadémia, 1893), 270.

³⁶ The majority of eighteenth- and nineteenth-century narrative sources about the Danube and Tisza Interfluvium Region were collected and published in: *Helytörténeti források és szemelvények a XVIII-XIX. századból* [Sources and selected passages of local history from the 18-19th centuries] ed. Tibor Iványosi-Szabó, (Bács Kiskun Megyei Múltjából 6, Budapest: Bács Kiskun Megyei Levéltár, 1982.).

³⁷ Engel, *The Realm of St Stephen*, XIX.

2.4 CARTOGRAPHY

Maps are outstanding sources for investigating the changing built and natural features in the landscape because they can preserve visual representations of settlement sites, road networks and even fields, allowing the researcher the opportunity to identify trends in these representations over time. Maps can also show the baseline topographical and hydrological information, and these too can lead to a study of changes in the environmental conditions of a region over time. The first printed map of the Hungarian Kingdom by Lazarus secretarius, completed before of 1528, contains essential information on the study region by presenting the major existing settlements (Fig 2).³⁸

Unfortunately, no detailed maps, plans or drawings are known from the Ottoman Period concerning the study area; the earliest images appear from the the mid-eighteenth century. There are two main types of eighteenth-nineteenth century cartographic representations, including comprehensive maps depicting larger areas such as Pest County, or the Kiskunság area. These are especially excellent sources for the settlement pattern and overall ecology, and contain data on the main road system. Such representations often depict church ruins or show field names, giving evidence on deserted settlements. In these series there are two major cartographers whose works are relevant in the present instance. The reckoned polymath Sámuel Mikoviny (Samuel Mikoviny, 1700-1750) was commissioned in 1731 to construct individual county maps for Matthias Bel's *Notitia Hungariae Novae Historico-Geographica*. In these series he created the earliest representation of the Cuman and Jazyg territories and Pest County (*Mappa Partis Hungariae quae Iazyges Cumani Maiores et Minores Continentur* 1732, and *Mappa Comitatus Pesthiensis*, 1737).³⁹ Antal Balla (Antonius Balla, 1739-1815) in turn contributed to the mapping of the territory between the Danube and Tisza rivers in the eighteenth century. His map of Pest County from 1793 (*Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth*) is among the most important topographical sources of the region.⁴⁰

³⁸ *Tabula Hungariae ab quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalis secretarii...* Budapest, Országos Széchényi Könyvtár [National Hungarian Library], Apponyi Collection M 136. The most important recent publications on this map are: *Lazarus Secretarius- The first Hungarian mapmaker and his work*, edited by Lajos Stegena, (Budapest: Akadémiai Kiadó, 1982); Balázs Székely, *Rediscovering the old treasures of cartography – What an almost 500-year-old map can tell to a geoscientist?* *Geophysical Research Abstracts* 10 (2008): 113-115; Gábor Timár, Gábor Molnár, Balázs Székely and Katalin Plihal, “Orientation of the map of Lazarus (1528) of Hungary – result of the Ptolemaic projection?”, in: *Cartography in Central and Eastern Europe. Lecture Notes in Geoinformatics and Cartography*, edited by Georg Gartner and Felix Ortig, (Berlin-Heidelberg: Springer, 2010), 487-496.

³⁹ Both maps are catalogued in the HM Hadtörténeti Intézet és Múzeum [Institute and Museum for Military History], Budapest. The online resource for the maps can be found at: <http://mek-oszk.uz.ua/06400/06422/html/top_jaszskunsag/jasz4.htm> ; <http://mek-oszk.uz.ua/06400/06422/html/top_jaszskunsag/jaszskunsag.html>

⁴⁰ Országos Széchényi Könyvtár [Hungarian National Library], S12 Div 10 No 76:1-2

The three series of Ordnance Surveys are a fundamental resource because they are quite detailed maps that were compiled based on similar principles throughout the study region, and consequently provide a comparable standard across the study area. The First Ordnance Survey was compiled in 1782-1785, the Second Ordnance Survey in 1806-1869, and Third Ordnance Survey in 1872-1884.⁴¹

For more detailed historical mapping, there is a large corpus of more specialized maps especially in the municipal archives of Kecskemét, such as estate, cadastral maps, maps of the postal services, and other representations focusing on hydrological or other environmental features.⁴²

Lastly, one has the current Ordnance Survey maps of 1:25000, 1:10000 scales, with which to compare the historic mapping and is also a pre-requisite for determining locations during the field surveys conducted for the thesis.

2.5 DATA FROM HISTORICAL ECOLOGY AND ENVIRONMENTAL STUDIES

As landscape itself represents a unique and well defined source material, data connected to the historical layers of the environment is regarded as a separate group of primary source evidence. There are two principal ways in which researchers have approached environmental analysis. One investigates the various ecological conditions that can be discerned, such as climate change,⁴³

⁴¹ The series of the Ordnance Surveys are now also available in electronic version. *Az első katonai felmérés* [The First Ordnance Survey], DVD-ROM (Budapest, Arcanum e-térképtár, 2004); *A II. katonai felmérés* [The Second Ordnance Survey of Hungary], <http://archivportal.arcanum.hu/maps/html/katfel2b_google.html>, accessed on 17 June, 2010; *A Monarchia III. katonai felmérése* [The 3rd Military Mapping Survey of Austria-Hungary], <<http://lazarus.elte.hu/hun/digkonyv/topo/3felmeres.htm>>, accessed on 14 September, 2008

⁴² The largest collection of early maps, for example from the Hungarian National Széchenyi Library are now available as edited CD or DVD version, but a significant part of the used material was collected and copied from the Archives of Kecskemét. *Kézírtos térképek az OSZK Térképtárában* [Hand-drawn historic maps in the National Széchenyi Library] DVD-Rom, Arcanum Kft, 2007.

⁴³ Here I would like to refer to the studies of Lajos Rácz, Andrea Kiss and András Vadas, and mention some of their relevant publications: Verena Winiwarter -Rácz Lajos et al., "Environmental History in Europe from 1994 to 2004: Enthusiasm and Consolidation", *Environmental History* 10 (2004): 501-530.; Lajos Rácz, "The Climate History of Central Europe in the Modern Age", in: *People and Nature in a Historical Perspective*, eds. József Laszlovszky - Péter Szabó (Budapest CEU Press, 2003), 229-246; Lajos Rácz, *Climate History of Hungary Since 16th Century: Past, Present and Future*, (Pécs, 1999); Lajos Rácz, *Magyarország környezettörténete az újkorig* [Environmental history of Hungary until the Modern Period], (Budapest: MTA TTI, 2008); Andrea Kiss, "Some weather events from the fourteenth century (1338-1358)", *Acta Climatologica Universitatis Szegediensis* 30 (1996): 61-69; Andrea Kiss, "Some weather events in the fourteenth century II. (Angevin period: 1301-1387)", *Acta Climatologica Universitatis Szegediensis* 32-33 (1999): 51-64; Kiss, Andrea, "Weather events during the first Tartar invasion in Hungary (1241-42)", *Acta Geographica Universitatis Szegediensis* 37 (2000): 149-156; András Vadas, Weather Anomalies and Climatic Change in Late Medieval Hungary: Weather events in the 1310s in the Hungarian Kingdom, (Saarbrücken: VDM Verlag, 2010); András Vadas, "Documentary evidence on weather conditions and a possible crisis in 1315-1317: case study from the Carpathian Basin" *Journal of Environmental Geography* 2(2009): 23-29; András Vadas, *Weather Anomalies and Climatic Change in Late Medieval Hungary: Identifying Environmental Factors*, MA Thesis in Medieval Studies, (Budapest: CEU, 2010).

hydrology,⁴⁴ special elements of the flora such as forests,⁴⁵ woodland steppe⁴⁶ or meadows.⁴⁷ This evidence is generally presented at a regional scale and attempts are then made to find connections to documentary sources or archaeological material.

The other approach is by means of specific environmental case studies connected to the survey of micro-regions or archaeological sites.⁴⁸ There are numerous examples for such environmental-oriented research approach, from the prehistoric and historic periods, from the Mesolithic to the present in both the international and the Hungarian scholarly literature, giving a broad spectrum of various research situations and methodological attitudes. Among them the most useful projects that I could associate to my work were the complex paleo-environmental studies by András Pálóczi-Horváth at the medieval village at Szentkirály, which site was part of my research area, and Pálóczi's investigations in the Nagykunság Region; in addition, I found more comparable case studies in the recently published volumes entitled *Environmental Archaeology in North-Eastern Hungary* and *Environmental Archaeology in Transdanubia*.⁴⁹ Besides, I strongly incorporated the results of Andrea Kiss and András Vadai on medieval climate changes in my

⁴⁴ Lajos Glaser, "Az Alföld régi vízrajza és a település" [Historical hydrology of the Great Plain Region and the pattern of settlements] *Földrajzi Közlemények* 67 (1939): 297-307; Gábor Bagi, "Adatok a Közép- Tiszavidék természeti képéhez és a vizek hasznosításához a török hódítás előtt" [Data on the hydrological landscape and use of hydrological resources in the Middle Tisza Region, before the Ottoman Occupation Period], in: *Ezer év a Tisza mentén. A Millennium in the Tisza Region*, edited by Zsolt Sári (Szolnok: Jász-Nagykun megyei Múzeumok Igazgatósága, 2000), 113-158; Ferenc Kovács, "Analysis of the 200-year Environmental Changes of a Strictly Protected area in the Kiskunság National Park, Hungary," in: *Dealing with Diversity, Proceedings of the 2nd International Conference on European Society for Environmental History*, eds. Leos Jelecek et al., (Prague: Charles University Faculty of Science, 2003), 263-268; László Ferenczi, "Vízgazdálkodás a középkori Magyarországon", in: *Gazdaság és gazdálkodás a középkori Magyarországon*, 341-361.

⁴⁵ Péter Szabó, *Woodland and Forest in Medieval Hungary*, BAR International Series 1348. (Oxford: Archeopress, 2005); Zsolt Molnár and András Kun, eds., *Alföldi erdősztyeppe maradványok Magyarországon* [Forest steppe remains in Hungary], WWF Füzetek 15. (Budapest: WWF, 2000).

⁴⁶ Bíró, Mariann. *A történeti térképekre alapuló vegetációrekonstrukció és alkalmazásai a Duna- Tisza közén* [Historical vegetation reconstructions in the Danube-Tisza Interfluve region, and its uses], (PhD dissertation, Pécs University, 2006).

⁴⁷ Eszter Illyés and János Bölöni, *Lejtősztyepek, löszgyepek és erdősztyeprétek Magyarországon. Slope steppes, loess steppes and foreststeppe meadows in Hungary*, (Budapest: MTA Ökológiai és Botanikai Intézete, 2007), *Dry sand vegetation of the Kiskunság*, edited by Zsolt Molnár, (Kecskemét: Természetbúvár Alapítvány, 2003).

⁴⁸ Here I would like to refer to some recent summaries on the topic: *People and Nature in Historical Perspective*, edited by József Laszlovszky and Péter Szabó, CEU Medievalia 5, (Budapest: CEU Medieval Studies and Archeolingua, 2003); *Környezettörténet. Az utóbbi 500 év környezeti eseményei a történeti és a természettudományi források tükrében* [Historical ecology: the events of the last five hundred years as mirrored in historical and environmental sources], edited by Mikós Kázmér, (Budapest: Hantken Kiadó, 2009); *Environmental Archaeology in North-Eastern Hungary*, edited by Erika Gál, Imola Juhász and Pál Sümegi, *Varia Arcaeologica Hungarica* 19, (Budapest MTA Régészeti Intézete, 2006); Csilla Zatykó, Imola Juhász and Pál Sümegi, *Environmental Archaeology in Transdanubia*, *Varia Arcaeologica Hungarica* 20 (Budapest: MTA Régészeti Intézete, 2007).

⁴⁹ András Pálóczi Horváth, "A késő középkori Szentkirály határhazánál és gazdálkodása" [Land use and economy of Szentkirály village in the late medieval period], in: *Gazdálkodás az Alföldön. Földművelés*, edited by László Ferenc Novák, Arany János Múzeum Közleményei IX, (Nagykőrös: Arany János Múzeum, 2002), 53-68; András Pálóczi Horváth, "Komplex településtörténeti kutatások a Nagykunságban" [Complex settlement historical surveys in the Nagykunság Region], in: *Perlekedő évszázadok. Tanulmányok Für Lajos történész 60. születésnapjára*, edited by Ildikó Horn, (Budapest: ELTE Középkori és Kora-újkori Magyar Történeti Tanszék, 1993), 41-80; Gál- Juhász-Sümegi, *Environmental Archaeology in North-Eastern Hungary*; Zatykó- Juhász - Sümegi, *Environmental Archaeology in Transdanubia*.

discussion,⁵⁰ and in particular the several publications on the development of ecological environment by Marianna Biró and Zsolt Molnár.⁵¹ For the present study, I have worked from the available published results.

2.6 ARCHAEOLOGICAL DATA

2.6.1 ARCHAEOLOGICAL MATERIAL, EXCAVATION DATA

Targeted archaeological research of medieval village sites was carried out in the study region by Kálmán Szabó in the 1930s, but thereafter only few investigations of this kind were completed in the study area.⁵² The large-scale excavations of the last decades, often connected to motorway rescue excavations, provided abundant data on the topography of the region, but unfortunately only limited results have been published, providing only a small part of the data from a series of short reports.⁵³ Yet significant archaeological-topographical studies were focused on the medieval Cuman population in the Interfluvium region, and the works of András Pálóczi Horváth,⁵⁴ Ferenc Horváth,⁵⁵ Gábor Hatházi,⁵⁶ and Szabolcs Rosta,⁵⁷ are among the more important studies on the archaeology and settlement traditions of the Cumans.

⁵⁰ For bibliography see Note 42.

⁵¹ For bibliography see Note 43-45.

⁵² Szabó, *Az alföldi*; Papp, *Ásatások a XVI. században elpusztult Kecskemét környéki falvakban*.

⁵³ On the archaeological research of the region in general: Elvira H. Tóth, "Négy évtized régészeti kutatásai Bács-Kiskun megyében" [Four decades of archaeological research in Bács-Kiskun County], *Cumania* 12 (1990): 81-237.; Erika Wicker, Rozália Kustár and Attila Horváth, "Régészeti kutatások Bács-Kiskun megyében (1990-1995)" [Archaeological Research in Bács-Kiskun County, 1990-1995] *Cumania* 17 (2001): 33-127.

⁵⁴ András Pálóczi-Horváth, *Pechenegs, Cumans, Iasians. Steppe peoples in medieval Hungary*. (Hereditas/ Budapest: Corvina, 1989); András Pálóczi-Horváth, "Situation des recherches archéologiques sur les Comans en Hongrie" *Acta Orientalia ASH* 27 (1973): 201-209; András Pálóczi-Horváth, "L'immigration et l'établissement des Comans en Hongrie" *Acta Orientalia ASH* 29 (1975): 313-333; András Pálóczi-Horváth, "Steppe traditions and cultural assimilation of a nomadic people: the Cumanians in Hungary in the 13th-14th century", in: *Archaeological Approaches to Cultural Identity*, ed. by Shennan, S., (London: Routledge, 1989), 291-302. András Pálóczi-Horváth, "Assimilation et survivances dans la Hongrie médiévale. L'exemple des peuples orientaux", in: *Conquête, acculturation, identité: des Normands aux Hongrois. Les traces de la conquête*. P. Nagy, ed., (Rouen: Publications de l'Université de Rouen, No. 302, Collection Cahiers du GRHIS, No. 13.), 65-78.

⁵⁵ Ferenc Horváth, *A csengelei kunok ura és népe* [The lord and the people of the Cumans at Csengele], (Budapest: Archaeolingua, 2001); Ferenc Horváth, "Új régészeti szempontok a kunok korai letelepedéséhez a Duna-Tisza közén" [New Archaeological Data on the Early Settlement on the Kuns (Cumans) in the Danube-Tisza Midregion], in: *A Jászkunság kutatása 2000. Tudományos Konferencia a Kiskun Múzeumban*, edited by Erszébet Bánkiné Molnár- Edit Bathó and E. Kiss, Jászberény-Kiskunfélegyháza: Kiskun Múzeum, 2002, 21-34; Ferenc Horváth, "Újabb kun vezéri sír leletei a Jászkunságból: Kiskunmajsa-Kuklis Tanya. Die Funde eines neuen kumanischen Führergrabes in Kleinkumanien: Kiskunmajsa-Kuklis Gehöft" *Studia Archaeologica* 9 (2003): 369-386.

⁵⁶ Gábor Hatházi, "Halas kun székközpont és Magyar mezőváros a középkorban" [Halas, a Cuman seat and market town in the Middle Ages], in: *Kiskunhalas története*, edited by Aurél Szakál, (2 vols, Kiskunhalas: Kiskunhalas Város Önkormányzata, 2000), vol. 1, 169-302; Gábor Hatházi, *A kunok régészeti emlékei a kelet-Dunántúlon* [Archaeological legacy of the Cumans in Eastern-Transdanubia], (Budapest: Magyar Nemzeti Múzeum, 2004)

⁵⁷ Szabolcs Rosta, "Templomok Kiskunfélegyháza környékén" [Deserted medieval churches around Kiskunfélegyháza] *Cumania* 20 (2004): 113-172; Diána Nyári and Szabolcs Rosta, "Középkori szántás a homok alatt: Előzetes jelentés Kiskunhalas határából" [Medieval ploughing traces under the sand: preliminary report from Kiskunhalas] *Halasi Múzeum 3. emlékkönyv a Thorma János Múzeum alapításának 135. évfordulója alkalmából*, edited by Aurél Szakál, Kiskunhalas: Thorma János Múzeum, 2009, 27-34.

There is only one long-term systematic survey of a village site, namely the work carried out by András Pálóczi-Horváth in the Cuman village of Szentkirály,⁵⁸ situated fifteen kilometers east of Kecskemét. Pálóczi-Horváth's investigation has contributed essential insight to the late medieval house types, the inner structure of the medieval settlement, and on the overall topographical tendencies in the territory of the village. For my part, I have had the opportunity to carry out a small-scale excavation in the central part of the medieval settlement and the results are incorporated within the thesis. I have also carried out field surveys at Bugac-Monostor, where two excavation projects were carried out with my participation.

2.6.2 LANDSCAPE STUDIES

Field survey is another essential tool for discovering the topographical development of an area. For the purpose of the dissertation, I used the published archaeological database of the József Katona Museum of Kecskemét and the database of the National Office for Cultural Heritage.⁵⁹ Moreover, I collected field-walking data from the available scholarly literature, and I used the results of the earlier fieldwork results of my MA thesis. In addition, I tried to examine some part of the study area through targeted intensive field walking between 2002 and 2008, especially in the neighborhood of Kecskemét. The sites visited were documented with written descriptions and photographs, and cultural remains were collected in a systematic manner.

⁵⁸ András Pálóczi-Horváth, "A Lászlófalván 1969-74. évben végzett régészeti feltárások eredményei" [Excavations in the deserted medieval village at Lászlófalva, 1969-1974] *Cumania* 4 (1976): 275-311; András Pálóczi-Horváth, "Régészeti és településtörténeti adatok a kun letelepedéshez (Egy középkori kun falu, Szentkirály feltárásának az eredményei)" [Archaeological and Settlement historical data to the settlement of Cumans: the excavation results from Szentkirály], in: *Falvak, mezővárosok az Alföldön*, edited by László Novák and László Selmeczi, (Az Arany János Múzeum Közleményei 4 (1986), 215-236; András Pálóczi Horváth; András Pálóczi Horváth, "The Reconstruction of a Medieval (15th Century) House at Szentkirály (Middle-Hungary)", in: *Život v archeologii středověku. Das Leben in der Archäologie des Mittelalters. Life in the archaeology of the middle ages. La vie vue par l'archéologie médiévale. Sborník příspěvků věnovaných Miroslavu Richterovi* *29. 5. 1932. a Zdeňku Smetánkovi *21. 10. 1931. Festschrift für Papers in honour of-Mélanges offerts à Miroslav Richter - Zdeněk Smetánka, eds. J. Kubková - J. Klápště - M. Ježek - P. Meduna (Praha: , 1997), 507-513; András Pálóczi Horváth, "Lakóház és telek rekonstrukciója Szentkirályon, egy alföldi késő középkori faluban" [Reconstruction of a medieval house and its plot at Szentkirály], in: *A középkori magyar agrárium. Tudományos ülésszak Ópusztaszeren*, eds. Lívia Bende and Gábor Lőrinczy, (Ópusztaszer: 2000), 121-149; András Pálóczi-Horváth, "A késő középkori Szentkirály határhasználata és gazdálkodása" [Land use and economy of Szentkirály village in the late medieval period], in: *Gazdálkodás az Alföldön. Földművelés*, ed. László Ferenc Novák., Acta Musei de János Arany Nominati. Az Arany János Múzeum Közleményei IX, (Nagykőrös: Arany János Múzeum, 2002), 53-68; András Pálóczi Horváth, "Development of the Late-Medieval House in Hungary", in: *The rural house from the Migration Period to the oldest still standing buildings. Ruralia IV, 8.-13. September 2001, Bad Bederkesa, Lower Saxony, Germany*, ed. Jan Klápště, (Prague: Památky Archeologické – Supplementum 15., 2002), 308-319; András Pálóczi Horváth, "The archaeological material of the households of the medieval village of Szentkirály (Hungary). Le mobilier archéologique des maisons du village médiéval de Szentkirály (Hongrie). Das archäologische Fundmaterial aus den Wohnstätten des mittelalterlichen Dorfes Szentkirály (Ungarn)", in: *Arts and Crafts in Medieval Rural Environment. L'artisanat Rural dans le monde médiéval. Handwerk im mittelalterlichen ländlichen Raum. Ruralia VI, 22nd – 29th September 2005, Szentendre – Dobogókő, Hungary*, eds. Jan Klápště – Petr Sommer, (Turnhout: Brepols Publishers, 2007), 111–117.

⁵⁹ H. Tóth, *Négy évtized régészeti kutatásai*; Wicker- Kustár - Horváth, *Régészeti kutatások Bács-Kiskun megyében*.

Among the more significant studies that have inspired my research are István Szabó and Ferenc Maksay's research on rural medieval settlements in Hungary,⁶⁰ and the publications of András Kubinyi,⁶¹ András Pálóczi-Horváth,⁶² József Laszlovsky,⁶³ and Csilla Zatykó.⁶⁴ Current research in historical and settlement geography⁶⁵ and settlement ethnology⁶⁶ have also influenced

⁶⁰ István Szabó, *A falurendszer kialakulása Magyarországon, X-XV. század* [The development of the villages in Hungary from the tenth to the fifteenth century], (Budapest: Akadémiai Kiadó, 1966); István Szabó, *A középkori magyar falu* [The villages of Hungary in the Medieval Period] (Budapest: Akadémiai Kiadó, 1969.); Ferenc Maksay, *A magyar falu középkori településrendje* [The morphology of the medieval villages in Hungary] (Budapest: Akadémiai Kiadó, 1971.)

⁶¹ Here I would like to mention those works that were absolutely relevant for my studies: András Kubinyi, *Városfejlődés és városhálózat a középkori Alföldön és az Alföld szélén* [The development and network of towns in the Great Plain region and the borderline of the plain in the medieval period], *Dél-Alföldi évszázadok* 14, (Szeged: Csongrád Megyei Levéltár, 2000); András Kubinyi, „Városhálózat a késő középkori Kárpát-medencében” [The network of urban settlements in the Carpathian Basin in the late medieval period], in *Bártfától Pozsonyig: Városok a 13.-17. században*, edited by Enikő Csukovits and Tünde Lengyel, (Budapest: MTA Történettudományi Intézete, 2005), 9-36.

⁶² András Pálóczi Horváth, „Az elpusztult késő középkori falvak morfológiai variációi” [Morphological variations of medieval deserted villages] *Arrabona* 44/1 (2006): 357–390; András-Pálóczi Horváth, „L'archéologie de l'environnement écologique et les recherches des villages désertés médiévaux en Hongrie” in: *Ruralia I. Conference Ruralia I - Prague, 8th-14th September 1995*, eds. J. Fridrich - J. Klápště - Z. Smetánka - P. Sommer, (Prague: Památky Archeologické - Supplementum 5, 1996), 262-268; András Pálóczi Horváth, „Variations morphologiques des villages désertés en Hongrie et la société rurale du moyen âge”, in: *Ruralia II. Conference Ruralia II - Spa, 1st-7th September 1997*, Eds.: J. Fridrich-J. Klápště-Z. Smetánka-P. Sommer, (Prague: Památky Archeologické - Supplementum 11, 1998), 192-204; András Pálóczi Horváth, „Falupusztásodás a Nagykunságban” [Village desertion in the Nagykunság region], in *A Jászkunság kutatása 2000. Tudományos konferencia a Kiskun Múzeumban 2000. szeptember 21-22*, ed. Bánkiné dr. Molnár Erzsébet – Hortiné dr. Bathó Edit – Kiss Erika (Jászberény – Kiskunfélegyháza, 2002), 47-55.

⁶³ József Laszlovsky, *Einzelhofsiedlungen in der Arpadenzeit. Arpadenzeitliche Siedlung auf der Mark von Kengyel* *Acta Archaeologica Academiae Scientiarum Hungaricae* 38 (1986): 227-257; Laszlovsky, *Field Systems in Medieval Hungary*, 432-444.; József Laszlovsky, „Középkori kolostorok a tájban, középkori kolostortájak” [Medieval Monasteries in the Landscape, Medieval Monastic Landscapes]. In: „*Quasi liber et pictura*” *Tanulmányok Kubinyi András hetvenedik születésnapjára. Studies in Honour of András Kubinyi on his Seventieth Birthday* edited by Gyöngyi Kovács, (Budapest: ELTE Régészettudományi Intézet, 2004), 337-349.; József Laszlovsky and Miklós Rácz, *Monostorosság, egy Tisza menti középkori falu* [Monostorosság, a deserted medieval village and its landscape], (Budapest: ELTE Régészettudományi Intézet, 2005); *Gazdaság és gazdálkodás a középkori Magyarországon*, József Laszlovsky and Péter Szabó, eds., (Budapest: Martin Opitz Kiadó, 2008).

⁶⁴ Csilla Zatykó, „Morphological study on a 15th century village, Csepely.” *Acta Archaeologica Academiae Scientiarum Hungaricae* 49 (1997): 167-193.; Csilla Zatykó, „Reconstruction of the medieval Nagyszakácsi (Somogy County)”, *Antaeus* 27 (2004): 367-431;

Csilla Zatykó, „Reconstruction of the medieval Nagyszakácsi (Somogy County)”, *Antaeus* 27 (2004): 367-431;

Csilla Zatykó, „Természeti táj – emberformálta táj: a középkori környezet rekonstrukciójának lehetőségei” [Natural landscape – Man-made landscape: Possibilities for reconstructing the medieval environment] in: *A középkor és a kora újkor régészete Magyarországon-Archaeology of the Middle Ages and the Early Modern Period in Hungary*, edited by Elek Benkő and Gyöngyi Kovács, Budapest: MTA Régészeti Intézete, 2010, 839-852; Csilla Zatykó, „Integrált kutatások: a tájrégészet”. In: *Régészeti Kézikönyv*, edited by Péter Gróf et al., CD ROM. Budapest 2011, 388-402; Csilla Zatykó, Aspects of fishing in medieval Hungary. In: *Ruralia 8. Processing, Distribution of Food. Food in the Medieval Rural Environment*, edited by Jan Klápště and Peter Sommer, Turhout: Brepols, 399-408.

⁶⁵ Some examples and major reviews in the context of the study region: Tibor Mendöl, *Táj és ember. Az emberföldrajz áttekintése* [People and Landscape: An Outline of Human Geography], (Budapest: Magyar Szemle Társaság, 1933.); Tibor Mendöl, *Településföldrajz* [Settlement Geography], (Budapest: Akadémiai Kiadó, 1963); Jenő Major, „A magyarországi településhálózatról” [About the network of settlements in Hungary] *Településtudományi Közlemények* 16 (1964): 32-65; György Fülek, ed., *A táj változásai a Kárpát – medencében a történelmi események hatására* [The effects of historical events on the changes of the landscape in the Carpathian Basin], (Budapest-Gödöllő: Szent István Egyetem, 2000.); Pál Beluszky, *Historische geographie des Grossen Ungarischen Tiefebene*, (Passau: Schenk Verlag, 2006); Sándor Frisnyák, ed., *Az Alföld történeti földrajza* [The historical geography of the Hungarian Great Plain] (2 vols, Nyíregyháza: Nyíregyházi Főiskola, 2000)

⁶⁶ Some examples and major reviews in the context of the study region: Attila Paládi-Kovács, *Magyar Néprajz IV. Anyagi Kultúra 3. Életmód* [Hungarian Ethnography vol. 4.: Material Culture vol.3.: Lifestyle] (Budapest: Akadémiai Kiadó, 1997); László Novák, *Településnéprajz* [Settlement ethnography], (Debrecen: Kossuth Lajos Tudományegyetem, 1995); János Bárh, *Szállások, falvak, városok. A magyarság települési hagyománya* [Lodgings, villages and towns: The

my approach as these disciplines are also making important advances in the study of settlement structure and the characteristics of landscape management.

2.6.3 AERIAL PHOTOS

The importance of aerial photography in archaeological surveys has been stressed in scholarly literature many times.⁶⁷ Two series of aerial photos exist that were most useful to my study. The Hungarian army took several series of photos in the 1950s and 1960s (Figs 3-4).⁶⁸ Otto Brasch's work in the 1990s undertaken as part of a project of targeted and intensive aerial photography across Hungary has also proved useful (Figs 5-8).⁶⁹ In addition, new photographic surveys were made during the intensive fieldwork at Bugac and Monostor in 2001 and before the excavation at Szentkirály in 2005, and this material is used extensively in this dissertation (Figs 9-10).⁷⁰

3. THE NATURAL ENVIRONMENT

3.1 GENERAL REMARKS

The area between the Danube and Tisza rivers has generally been neglected by landscape studies in Hungarian scholarly literature for decades. Ecologists and historians both viewed the region as a "cultural desert" today, resulting from the presumed catastrophic destruction wrought during the Ottoman Occupation, and further ruined by the anthropogenic effects of the last centuries, especially the regulation works of the Danube and the Tisza rivers. Accordingly, historical ecology and landscape as a research subject were neglected, or considered a highly hypothetical discipline that was mostly avoided in scientific investigations.⁷¹ The changing attitude in the last twenty years towards the preservation of natural heritage across Hungary has stimulated

settlement tradition of Hungary], (Kalocsa: , 1996) István Balogh, "Adatok az alföldi mezővárosok határhasználatához a XIV-XV. században" [Data on the field systems of the market towns in the Great Plain Region in the fourteenth to fifteenth centuries] *Hajdú-Bihar Megyei Levéltár Évkönyve* 3(1976): 273-308.

⁶⁷ See for instance Aston, *Interpreting the landscape*; or Mark Bowden, *Unravelling the landscape: an inquisitive approach to archaeology*, (Stroud: Tempus, 1999). The use of aerial photography in Hungarian medieval archaeology was recently summarized by Zsuzsa Miklós. Zsuzsa Miklós, "A légi fotózás szerepe a középkori régészetben" [Aerial photography in medieval archaeological investigations]. in: *A középkor és kora újkor régészete Magyarországon* [The Archaeology of the Middle Ages and the Early Modern Period in Hungary], edited by Elek Benkő and Gyöngyi Kovács, (Budapest: MTA Régészeti Intézete, 2010), vol. 2, 853-870.

⁶⁸ These photos are now freely accessible in the Institute for Military History in Budapest.

⁶⁹ The collection is stored at the Department of Ancient History and Archaeology at Pécs University, as part of the Aerial Archaeological Archive of Pécs (in Hungarian: Pécsi Légitérészeti Téma).

⁷⁰ These photos were taken by Zsuzsa Miklós (archaeologist, Institute of Archaeology of the Hungarian Academy of Sciences). I am very grateful for her professional assistance.

⁷¹ Györffy, *Az Árpád-kori Magyarország*, vol. 1, vol.2; Kecskemét története

ecologists to attempt assessing the ecological situation in the Interfluve region.⁷² The results have demonstrated the preservation of several unique ecological associations including quite ancient pre-modern features such as woodland steppe remains and marsh, despite the impact of the intensive agricultural production. It is now possible to consider the causes and processes that affect landscape change, and to qualify the series of impacts in a manner that helps to inform long-term projects which seek to preserve the diversity of species in the Great Plain area.

3.2 GEOGRAPHY

As the most western edge of the Eurasian steppe stretching from Oradea to Győr, the Great Hungarian Plain is one of the most typical landscapes of the Carpathian Basin, defined by the long-term interference of natural processes and human activity. The research area, situated in the center of the Carpathian Basin, is the heartland of the world-famous “Great Hungarian Puszta”, which is today mostly noted for its natural beauty, and known as a huge natural reserve, where people can see traditional architecture as well as agriculture of the past centuries (Fig 1). Isolated farmsteads are one of the most characteristic features in the Puszta, which cannot be neglected when discussing any aspects of this territory. The word “puszta” literally refers to a deserted, abandoned land with few if any built features (Figs 12-14). However studies on historical ecology and hydrology have shown that this sandy, dry, treeless landscape is quite recent formation in the Carpathian Basin.⁷³

This is a generally flat area, with low sand hills and thin soils of sand and loess, divided by long, deep depressions, filled with impermeable deposits. The height above sea-level decreases slightly from the west towards the east; where land varies between 110m and 112m in the west,

⁷² Marianna Biró, *A történeti térképekre alapuló vegetációrekonstrukció és alkalmazásai a Duna-Tisza közén*. [The possibilities of map-based vegetation reconstructions in the Danube-Tisza Interfluve Region] Ph.D. Dissertation, Pécsi University, Doctoral School of Biology, (Pécs, 2006), Plate 31; Marianna Biró et al., “Historical landscape changes near Fülöpháza in the Kiskunság”, in: *The KISKUN LTER: Long-term ecological research in the Kiskunság, Hungary*, edited by Kovács-Láng et al., (Vácrátót: Institute of Ecology and Botany, 2008), 11-12; Marianna Biró et al., “Measuring habitat loss in the Kiskunság based on historical and actual habitat maps”, in: *The KISKUN LTER: Long-term ecological research in the Kiskunság, Hungary*, Kovács-Láng et al. eds., (Vácrátót: Institute of Ecology and Botany, 2008), 13-14; Marianna Biró, et al. “Regional habitat pattern of the Duna-Tisza köze in Hungary II. The sand, the steppe and the riverine vegetation; degraded and ruined habitats” *Acta Botanica Hungarica* 50 (2008): 21-62; Zsolt Molnár, et al., “Past Trends, Present State and Future Prospects of Hungarian Forest-Steppes” in: *Eurasian Steppes. Ecological Problems and Livelihoods in a Changing World*, edited by Werger, Marinus J.A. and van Staalduinen, Marja A., (Dordrecht, Heidelberg, New York, London: Springer, 2012), 209-252.

⁷³ See Béla Bulla, “A Kiskunság kialakulása és felszíni formái” [The development of the Kiskunság Region and its geographical formations] *Földrajzi Könyv- és Térképtár. Értesítő* 1 (1950): 101-116.
; Márton Pécsi, *A dunai Alföld. Magyarország tájféldsorozata I.* [The Great Plain: Geographical Regions of Hungary, vol 1.], (Budapest: Akadémiai Kiadó, 1967.); Zsolt Molnár and Zoltán Varga, “Dunai-Alföld” [The Danube-Plain], in *Magyarország tájainak növényzete és állatvilága* [The flora and fauna of Hungary], edited by Gábor Fekete and Zoltán Varga, (Budapest: MTA Társadalomtudományi Központ, 2006), 151-198; Zsolt Molnár, Zoltán Varga and András Molnár “Tiszai-Alföld” [The Tisza-Plain], in: *Magyarország tájainak növényzete és állatvilága*, edited by Gábor Fekete and Zoltán Varga, (Budapest: MTA Társadalomtudományi Központ, 2006), 103-150.

elevations lie between 109m to 102m above the Adriatic sea level in the east (Fig 15). From geographical point of view, the area is situated in the inner, central part of the Danube Tisza Interfluvial Sand Ridge, which can be subdivided into more geomorphologic micro-regions; the study area is located in the Danube-Tisza Interfluvial Ridge. The basic geomorphologic conditions developed in the Upper Pliocene-Pleistocene (5,332 – 3,6 Ma BP), when the ancient Danube River flowed through the region, and laid down its alluvial deposits. The river changed direction to its present route in the last glacial phase (cca. 30,000 BP). Later, the landscape was significantly transformed when considerable alluvial deposits of the Danube were moved by the wind, forming sand hills oriented northwest-southeast, with small and large basins between them. The depressions filled with water, some of them drying up intermittently. Medieval charters refer to the hills as “halom” (“mound”), “hegy” (“mountain”), and “domb” (“hill”), and these features often played an important role as boundary markers (Fig 16).⁷⁴

3.3 HYDROLOGY

Generally, the pre-modern character of the Interfluvial Region owes much to water formation processes: among all the elements of the landscape, hydrology had the most critical impact on settlements and the structure of inhabited places.⁷⁵ Before the great regulation works of the Tisza and Danube and their tributaries in the eighteenth and nineteenth centuries, the water of smaller rivulets, streams and brooks often flooded the region, leaving huge open water surface alkaline lakes,⁷⁶ wetland areas or marshes.⁷⁷ These lakes and swampy, marshy places are depicted on maps from the Early Modern Period. Medieval sources often refer to similar circumstances; many place-names are mentioned with endings like “fertő” (“swamp”), “sár” (“marsh”), “tó” (“lake”), “szék” (“lake or place of a lake with white alkali”) (Fig 17-18). Experts argue that some rare humid ecosystems in the Interfluvial Region, such as Szappan szék, Kerek tó, Vörös mocsár, Kolon tó can be dated back as far as the Ice Age, and additional extensive wetland areas were located around the Ágasegyház, Fülöpháza, Bugac, and Móricgát (Fig 19).⁷⁸

⁷⁴ Marianna Bálint discusses this question, see Bálint, *Az Árpád-kori településhálózat rekonstrukciója a Duna Tisza- köz déli részén*.

⁷⁵ Bálint, *Az Árpád-kori településhálózat környezeti háttere*; Bagi, *Adatok a Közép- Tiszavidék természeti képéhez*.

⁷⁶ About alkaline lakes in the Great Plain Region see: Emil Boros, *Alkaline Lakes*, (Budapest: Authority for Nature Conservation, Ministry of Environment and Water, 2003), accessible at <http://www.termeszetvedelem.hu/_user/downloads/nok/Alkaline%20lakes%28angol%29.pdf>

⁷⁷ About wetland vegetation: Zsolt Molnár, “A Duna-Tisza-köz és a Tiszántúl növényzete a 18-19. század fordulóján I: Módszertan, erdők, árterek és lápok” [The vegetation of the Danube-Tisza Interfluvial Region and the Tiszántúl Region around the turn of the 18-19th century I: Methods, Woodland, Floodplain and Wetland] *Botanikai Közlemények* 95 (2008): 11-38.

⁷⁸ Marianna Biró et al., “Regional habitat pattern of the Danube-Tisza interfluvial in Hungary I. The landscape structure and habitat pattern; the fen and alkali vegetation” *Acta Botanica Hungarica* 49 (2007), 278., Biró, *A történeti térképekre alapuló*, 54.

3.4 VEGETATION, ECOSYSTEMS

The Great Plain area had been covered by woodland steppe, a separate vegetation belt in the transitional climatic zone between closed woodland and steppe, where more or less closed woods alternate with grassland of usually dry habitat.⁷⁹ The vast dry grasslands have been distinctive elements in the Hungarian landscape for a long time. As a major part of the Interfluve area is covered with loess or sandy loess, it is thought that dry loess meadows, meadow steppes, and also forest steppe meadows were present in the pre-modern landscape.⁸⁰ These steppes provided the most fertile soil and were first broken up from the early nineteenth century, but some indications of their original extents can be gleaned from an examination of the eighteenth-century maps. In addition, toponymic evidence has sometimes presented an indication of earlier flora.⁸¹

One special ecological environment of the area is the dry, sandy meadows and wind-blown sand dunes. Recent surveys have revealed that the sands have been in a constant process of movement for thousands of years. Luminescence dating of buried soil layers suggests that there were three main periods of shifting dunes: one in the Bronze Age (2880-900 BC), another in the Migration Period (5-8th c. AD), and the third in the thirteenth century.⁸² A fourth period of major sand movement is documented at the turn of the eighteenth century. In the late eighteenth century, a characteristic range of sand dunes divided by broad plain areas can be detected in the direction of present-day Hetényegyháza – Ballószög - Köncsög, following towards Jakabszállás – Monostor – Bugac – Szank – Tázlár - Bodoglár, and ending with a further range of sand dunes at Kelebia-Balotaszállás. By the mid-nineteenth century, the nature of sand dunes was modified considerably, and the intensification of shrubbery can be demonstrated accurately, at, for example, Alsó-Monostor (Figs 20-21).⁸³ It is suggested that the periodic speeding up sand dunes' shifting was due

⁷⁹ Molnár-Kun, *Alföldi erdőssztyepp-maradványok Magyarországon*, 7-19; Szabó, *Woodland*; Illyés- Bölöni, *Lejtőssztyepek*.

⁸⁰ Illyés and Bölöni, *Lejtőssztyepek*, 224;

⁸¹ Biró, *A történeti térképekre alapuló*, 69; Zsolt Molnár et al., "A Duna-Tisza közti homoki sztyepprétek történeti tájökölógiai jellemzése", in: *Talaj-vegetáció-klíma kölcsönhatások. Köszöntjük a 70 éves Láng Editet* edited by Kröel-Dulay et al., (Vácrátót: MTA Ökológiai és Biológiai Kutatóintézete, 2008), 39-56.

⁸² Diána Nyári- Tímea Kiss- György Sipos, "Történeti időkben bekövetkezett futóhomok mozgások datálása lumineszcenciás módszerrel a Duna-Tisza közén" [The luminescence dating of sand movements in historical periods in the Danube-Tisza Interfluve region], *III. Magyar Földrajzi Konferencia előadásai*, as accessed from <<http://geography.hu/mfk2006/pdf/Ny%E1ri%20Di%E1na.pdf>> ; Diána Nyári – Tímea Kiss "Holocén futóhomok-mozgások Bács-Kiskun megyében régészeti leletek tükrében" [Blown sand movement in historical times in the territory of Csengele] *Cumania* 21 (2005): 83-94; Pál Sümegi " A Kiskunság a középkorban – geológus szemmel"[The Kiskunság region from the geologist's perspective] in *A csengelei kunok ura és népe*, edited by Ferenc Horváth, (Budapest:Archaeolingua , 2001), 313-317.

⁸³ Biró, *A történeti térképekre alapuló*, 63; Marianna Biró and Zsolt Molnár,"A Duna-Tisza köze homokbuckásainak tájtípusai, azok kiterjedése, növényzete és tájtörténete a 18. századtól" *Történeti Földrajzi Füzetek* 5 (1998): 1-34.

mainly to anthropogenic factors such as the appearance of large-scale animal husbandry, because the intensive grazing and treading by animals had direct impacts on the ecosystems.⁸⁴

Geologists have described different sand formations based on the relative height, wideness and the length of the dune-tops, such as sand-grooves, piles, parabolic sand dunes, and whale humps.⁸⁵ According to the maturation of the sand soils, various sand soils were diversified: wind-blown sand through slightly humus sand, chernozem-type sand, rust-colored brown earth, and brown earth with clay stratum (“kovárvány”). As far as more fixed soils are covered with more closed vegetation, the type and nature of soil defines vegetation patterns, and is one indicator in ecological reconstruction. However, as recent investigations revealed, the colonization of vegetation on the bare surfaces of sand dunes cannot be explained as a direct process of development from annual grasses to the perennial species, and from more closed grasslands to closed woodlands. It is instead a case of a network of succession sequences that begins with Fescue (*Festuca Vaginata*) and ends with semi-desert-like poplar-juniper grooves (Fig 22).⁸⁶ Today, one of the most important research tasks for botanists is the investigation of the process of secondary succession in abandoned arable fields and vineyards, to get a better understanding of the regeneration and development of flora in the area.

Another distinctive feature in the overall image of the landscape is the absence of wooded areas.⁸⁷ Both medieval descriptions and modern scholarly research suggest that in former periods, extensive forests of oak, willow, poplar and birch covered the region.⁸⁸ Although the degree to which wooded areas decreased during the medieval period has not been clearly defined yet, it seems that by the early modern period forests were certainly much reduced by human activity, but smaller bodies of woodland remained. Experts suggest that around 900 AD some 15% of the Danube Tisza Interfluvium region was covered by forests, and that by the end of the eighteenth century this was reduced to some 3.5%.⁸⁹ More intensive bodies of wooded areas, gallery forests and shrubs were

⁸⁴ Molnár et al., *A Duna-Tisza közti homoki sztyepprétek történeti tájökológiai jellemzése*.

⁸⁵ *Dry sand vegetation of the Kiskunság*, edited by Zsolt Molnár, (Kecskemét: Természetbúvár Alapítvány, 2003), 9-15.

⁸⁶ Ibid, 19; Gábor Fekete, “The holistic view of succession reconsidered” *Coenoses* 7 (1992): 21-30.

⁸⁷ I will not discuss here the forced forestations of the last fifty years. About the ecological impacts of this process see Biró, *A történeti térképekre alapuló*; Marianna Biró and Zsolt Molnár, “Az Alföld erdei a folyószabályozások és az alföldfásítás előtti évszázadban” [The woodland of the Great plain before the forestation of the region], Miklós Kázmér, ed., *Az elmúlt 500 év környezeti*, 169-206; Molnár - Kun, *Alföldi erdősztyepp-maradványok*.

⁸⁸ Pál Greguss, “Szeged környéki leletek xylotómiai vizsgálata” (Xylotomical Study of Archaeological Finds from the Area of Szeged) *Botanikai Közlemények* 80 (1993): 133; Andrea Torma, “Archaeobotanical Finds in Szentkirály” in *Élet egy középkori faluban: 25 év régészeti kutatása a 900 éves Szentkirályon. Life in a Medieval Village. 25 Years of Archaeological Research in the 900 Years Old Szentkirály* (Budapest: Magyar Mezőgazdasági Múzeum, 1996), 37-45; Bálint, *Az Árpád kori településhálózat*, 43, Molnár - Kun, *Alföldi erdősztyepp-maradványok*.

⁸⁹ Péter Szabó, “Changes in woodland cover in the Carpathian Basin.” in: *Human Nature: Studies in Historical Ecology and Environmental History*, edited by Péter Szabó and Radim Hédl, (Brno: Institute of Botany of the ASCR, 2008), 106-115; Péter Szabó, “Hagyományos erdőgazdálkodás a Kárpát-medencében” in *Antropogén ökológiai változások a Kárpát-medencében* [Anthropogenic ecological changes in the Carpathian Basin], edited by Bertalan Andrásfalvy and Gábor Vargyas, (Budapest: PTE Néprajz – Kulturális Antropológia Tanszék and L’Harmattan, 2009), 139-141; Molnár-Kun, *Alföldi erdősztyepp-maradványok*, 7.

observed in the northern part of the territory in the 1700s, while smaller forests and less closed forest steppe were typical south of Kecskemét. The closed woodlands were mainly habited by oak and willow, and in the gallery forests⁹⁰ it is probable that poplar alternated with less oak, shrubs of hawthorn as well as blackthorn.⁹¹ Several wooded areas are recorded in the Kecskemét region from the sixteenth century. Woods were present at Lajos, Kőrös and Szentlőrinc, and the town records note the careful management of forests at Nyír, Talfája, Vacs, Szikra, Felső- Alpár, and Szentkirály even in the nineteenth century (Figs 23-24). The majority of these woods were owned and managed by the town, while others were leased by the town for an annual fee, and testaments of citizens also mention privately owned part of woodland.⁹² The final disappearance of these woods is dated to the turn of the twentieth century, when most areas were deforested and became plough land (Figs 25-26). From that period, invasive species such as acacia (*Robinia*) became dominant over primeval vegetation and changed the composition of most wood-ecosystems.

Early modern descriptions often refer to the rich fauna of the region. There was a great variety of fish, crabs, turtles, frogs, and birds such as wild ducks that lived in the reeds of swampy or wet areas.⁹³ Eagles were the largest birds of the meadows. It can be assumed that considerable numbers of foxes and hares also lived there.

3.5 ANTHROPOGENIC INFLUENCES ON THE LANDSCAPE IN THE MODERN PERIOD

The conditions governing the flora and fauna were altered dramatically after the great regulation works of the rivers Tisza and Danube in the nineteenth century, and this was most especially true for the Tisza from the middle of the century. The large-scale projects were undertaken to prevent flooding and transform the floodplains and river meadows to arable lands. During the implementation of the project⁹⁴ several bends of the Tisza were cut out to improve the run-off of water. Parallel dikes were built along the river to secure the newly acquired fields from flooding. The natural tributaries, small brooks and streams which maintained the natural hydrological balance of the area were converted into artificial canals and oxbow lakes to control inland inundation waters (Figs 27-31).

⁹⁰ Gallery forests are forests that form corridors along rivers or wetlands and project into landscapes that are otherwise only sparsely treed. Molnár-Kun, *Alföldi erdősztyepp-maradványok*.

⁹¹ Interestingly, the juniper, which became an emblematic species of the Interfluve region, was not typically present in the pre-eighteenth century landscape. Marianna Biró and Zsolt Molnár, "A Duna-Tisza köze homokbuckásainak tájtípusai, azok kiterjedése, növényzete és tájtörténete a 18. századtól" *Történeti Földrajzi Füzetek* 5 (1998): 1-34.

⁹² The woodland management of the region will be discussed in details in *Chapter 6*.

⁹³ See Iványosi, *Helytörténeti források*.

⁹⁴ There were three main phases of the work: Phase I: 1876-95, Phase II: 1912-42, Phase III: 1962-75-80. Zsuzsa Frisnyák, "A Tisza szabályozása és kára" [The regulation of the Tisza river and its disadvantages] *História* 9 (1978), 13-14.

In spite of such measures, the regulations have never entirely achieved their goals, as severe flooding has continued to destroy areas along the Tisza and the Danube until the very recent past.⁹⁵ In addition, since the regulation projects, the Great Plain region has been struggling with a critical dehydration process (Fig 32). The once abundant natural water resources are disappearing and huge areas have become sand deserts, making agricultural activity almost impossible.⁹⁶ Ecological analyses detected significant decreases in the water surfaces over the past two centuries as well as localized disappearances of water, and this has resulted in a critical negative impact on indigenous flora and fauna. The changes in hydrology wrought significant impact on humidity, micro-climate and water table levels, and this has in turn affected soil formation processes and the transformation of natural flora. Almost all swamps, wet forests and willow forests have vanished in the sandy areas.

From the second half of the nineteenth century, the introduction of fertile sandy-loess and chernozem soils to agricultural production brought considerable changes in the regional-scale image of the landscape. The quickly expanding arable fields, which were protected against floods, the liberation of peasantry from feudal duties and the growing market for wheat, resulted in the quick transformation of traditional ecosystems. Besides ploughing, the sandy dunes were forcedly forested, orchards and extensive vineyards were planted, and these actions destroyed primeval vegetation; only wet and sodic areas escaped intensive agricultural production (Fig 33). In conclusion, the transformations wrought by the river drainage works and associated intensification of agriculture presents a situation today where 85% of the 1.4 million hectares of the Danube-Tisza Interfluvial Region is described by ecologists as “cultural land” or “non-natural land”, while only around 15% of the region, representing 195,255 hectares, is described as “natural” or “almost natural” lands (Fig 34).⁹⁷

⁹⁵ There is a new state directed management strategy on the flood-prevention entitled “*Vásárhelyi terv*” [Vásárhelyi Plan], which aims to handle the flood-problems by building large water-reservoirs to collect and handle the flood waters. See: <<http://www.aquamedia.at/templates/index.cfm/id/13801>>

⁹⁶ Kovács, *Analyzes*; Biró, *A történelmi térképekre*, 57-58.

⁹⁷ Most lands described as being in an almost natural state are those sodic and wet ecosystems, which were not involved in agricultural production. Marianna Biró and Zolt Molnár, “A Duna-Tisza köze homokbuckásainak tájtípusai, azok kiterjedése, növényzete és tájtörténete a 18. századtól” [The landscape variations of the sand dunes in the Danube Tisza Interfluvial Region, the expansion, vegetation and landscape history from the eighteenth century] *Történelmi Földrajzi Füzetek* 5 (1998): 1-34.

4. THE LANDSCAPE OF VILLAGES

Among the various settlement forms in medieval history, villages are generally regarded as the most common legal, social, and economic unit of medieval rural communities in Hungary.⁹⁸ Accordingly, I will first discuss this settlement form. To begin with, I will summarize the general character of the medieval Hungarian village system. As my research framework is focused on the late medieval period of the fourteenth-seventeenth centuries, I will deal with the origins or the formation period of the villages during the tenth-thirteenth centuries in an introductory fashion, so that the principal attention can be given to the later period when we see evidence for transformation in the structure of village settlements, including nucleation and desertion processes. The analysis will move from a broader-scale view of regional patterns to a smaller-scale study of individual settlements. The constituent elements of the villages, such as the toft, the house, and the church will be examined in the second part of the chapter. Two case studies are presented to exemplify two possible development schemes, and to present various approaches concerning the study of desertion.

A comprehensive register of the medieval villages sites considered within the study area is presented as Appendix I. The register is set out so that each entry includes the principal information where known; namely, the dating of the site; settlement type; changes noted in its status; owners' names; a brief history of the settlement; and references to published archaeological data.

4.1 GENERAL NOTES

The interpretation of villages is regarded as extremely complex because villages, "...cannot be described in terms of simple morphological or developmental models." Moreover, villages are not 'stable' or 'timeless', they are extremely vulnerable and exposed to changes in the local, regional and national economic and social environs".⁹⁹ The mapping of the changing pattern of village-type settlements is considered to be among the greatest challenges in many European countries, and this includes Hungary.

There are many elemental but unanswerable questions and debates around villages. In Hungary, the overall number of medieval village-type settlements, alike the demography of villages, cannot be realistically stated, only estimated, partly because no comprehensive list or

⁹⁸ Báth, *Szállások, falvak, városok*, 122; Szabó, *A középkori magyar falu*, 78.

⁹⁹ Richard Muir, *The New Reading the Landscape*, (Exeter: University of Exeter Press, 2000) 175; Mark Page and Richard Jones, "Stability and Instability in Medieval Village Plans: Case Studies in Whittlewood", in: *Medieval Landscapes: Landscape History after Hoskins*, edited by Mark Gardiner and Stephen Rippon, vol. 2, (Oxford: Windgather Press, 2007), 139-153.

census rolls of villages which could reveal reliable statistical data has survived from the medieval period.¹⁰⁰ There are also various terminological debates around the inconsistent contemporary Latin terms used in written documents relating to the inhabited or deserted status of a given settlement which makes the interpretation in many cases unreliable.

Some figures for the number of villages in medieval Hungary were first estimated by István Szabó in the 1970s. He argued that around the tenth-eleventh century there might have been around 3,000-4,000 villages in the Hungarian Kingdom, while by the late fifteenth-early sixteenth century it is suggested that the total number had risen to 18,000-19,000 settlements (including market towns and civitates).¹⁰¹ This theory was reformulated by András Pálóczi-Horváth, who, on the basis of archaeological evidence proposed that there might have been around 13,000-16,000 settlements before the Mongol Invasion, and suggested that in the early fourteenth century 18,000-19,000 villages existed in Hungary.¹⁰² These estimates lead to additional questions concerning the size and the average population numbers of a medieval village community. There are various sources for this from the eleventh century onwards, and documents refer to settlements of various sizes, inhabited by as few as one or two listed households of peasants to villages inhabited by fifty or sixty households. According to a royal register of 1427, there were 21,257 portae (tax-units) recorded in 1,059 settlement sites, which suggests that there were around 20 portae or 25-30 households in an average village.¹⁰³ From another document, the filial quarter case between the Garai and the Szécsi families from 1478, it can be calculated that on average 12-16 households can be counted for each inhabited village.¹⁰⁴ In relation to village sizes, it has also been proposed that environmental factors

¹⁰⁰ András Kubinyi and József Laszlovszky in their review on medieval demography of Hungary argued that due to the lack of reliable and detailed documents, there are only some pieces of information which may induce vague estimations on the medieval population, but even if these elements may refer to tendencies or the directions of changes, it is not possible to quantify the data. András Kubinyi and József Laszlovszky, "Népességtörténeti kérdések a késő középkori Magyarországon: népesség, népcsoportok, gazdálkodás" [Demographic issues in late medieval Hungary: population, ethnic groups, economy], in: *Gazdaság és Gazdálkodás a középkori Magyarországon: gazdaságtörténet, anyagi kultúra, régészet*, edited by András Kubinyi, József Laszlovszky and Péter Szabó, Budapest: Martin Opitz Kiadó, 2008, 37-44.

¹⁰¹ Szabó, *A középkori falurendszer*, 68-79, 189-203.

¹⁰² András Pálóczi-Horváth, "Régészeti és demográfiai módszerek Árpád-kori településtörténeti kutatásainkban" [Archaeological and demographic methods in Árpadian Age settlement surveys] in: *A magyar középkor kutatóinak nagyvázsonyi találkozóján elhangzott előadások, hozzászólások*, edited by István Éry, (Veszprém: MTESZ, 1973), 41-67.

¹⁰³ Engel, *The Realm of St Stephen*, 273. Similar consequences were drawn by István Szabó in 1971, who argued that there were 30-40 households in an average late medieval village. Szabó, *A középkori falurendszer*, 78-79.

There are different opinions on the meaning of the term household. It is frequently suggested that household is identical with a family meaning the community of two or three generations of relatives of five to seven people. See: András Kubinyi, "Die Bevölkerung des Königreichs Ungarn am Ende des 15. Jahrhunderts", In: András Kubinyi, *König und Volk im spätmittelalterlichen Königreich Ungarn. Städteentwicklung, Alltagsleben und Regierung im mitteraltärlchen Königreich Ungarn*, (Herne: Schäfer., 1998), 148-183; Kubinyi-Laszlovszky, *Népességtörténeti kérdések*, 37-48.

¹⁰⁴ Kubinyi, András, "A nagybirtok és jobbágysai a középkor végén az 1478-as Garai-Szécsi birtokfelosztás alapján" [Lordship and its peasants in the late medieval period, as reflected in the Garai-Szécsi filial quarter case in 1478], *Veszprém Megyei Múzeumi Közlemények* 18 (1986):197-226.

fostered a situation whereby the Great Plain Region was typically settled by larger villages with extensive boundaries, while supposedly, smaller villages were more usual in Transdanubia.¹⁰⁵

In the central, southern and south-eastern part of the Kingdom (including the study area in the Danube Tisza Interfluvium Region), unlike the major part of Transdanubia or Transylvania and Upper Hungary, late medieval villages were mostly deserted and had disappeared during the Ottoman Occupation Period. Even if many medieval village sites were preserved as place-names and the repopulated modern villages bear the names of their medieval predecessors, the actual site and the topography of modern settlements has usually no continuity with pre-modern patterns. Consequently, in many parts of Hungary, in addition to the documentary sources and cartographic representations, the resources provided by archaeology have primary importance in presenting the changing landscape of medieval villages. Due to systematic and targeted field work projects as well as excavations conducted during the last decades, a large number of medieval village sites are known and documented by archaeologists, while many new sites are being continually discovered and documented across Hungary as a result of new archaeological work.¹⁰⁶

A major challenge is the fact that despite the apparent widespread recording of sites, only a small number of medieval villages have been subject to detailed archaeological study.¹⁰⁷ Much of the archaeological material remains unpublished.¹⁰⁸ Even on those sites where complex and interdisciplinary settlement studies are conducted, many surveys (both field-walking and excavations) are concentrated on the infield areas, or the central areas of the settlements, such as the house sites and the church site. In contrast, the backyard area and the outfields get less attention. Accordingly, as Pál Engel notes, the medieval network of villages is often represented as a series of isolated spots (or dots) in scholarly literature, instead of the network of neighbouring fields or topographic clusters.¹⁰⁹

¹⁰⁵ Engel, *The Realm of St Stephen*, 273.

¹⁰⁶ Beside large-scale investment projects such as motorway constructions or embankment projects, there are considerable changes due to geological processes (such as the shift of the windblown sand dunes in the Danube–Tisza Interfluvium) or vegetation changes (e.g. the site becomes forested).

¹⁰⁷ Among the best-researched sites are for example Sarvaly, Ete, Muhi, Szentkirály, or Kána. Still, in most cases only parts of the settlements were surveyed (houses, church, cemetery), while the streets and the tofts got less attention.

¹⁰⁸ The large-scale archaeological excavations connected to motorway constructions or other investment projects of the last decades are thus of great importance, since these occasions bring possibilities to excavate extended surfaces and document comprehensive parts of settlements.

¹⁰⁹ Engel, *A Drávántúl középkori topográfiaja*.

4.2 THE DEVELOPMENT OF VILLAGES IN HUNGARY BEFORE THE FOURTEENTH CENTURY

In Hungary, villages were continuously present in the settlement structure throughout the Migration Period (fifth to tenth centuries). Villages associated with the Langobards, the Gepids, the Avars and the Carolingian Period is well known from archaeological excavations.¹¹⁰ In spite of such a wealth of possible information, the interpretation of the conquering Hungarians' lifestyle after their arrival into the Carpathian Basin is among the major controversies in scholarly work, where opinion is divided on whether Hungarians at that time were nomads or agriculturalists.¹¹¹ The answer is not straight forward. Documentary sources suggest that the ancient Hungarians were mainly nomadic livestock herders in the ninth century, but there are traces that they had arable lands already in the south Russian Steppe. Archaeobotanical investigations suggest that their main crops were the wheat, barley and millet.¹¹² Following the conquest around 896, Hungarian society and economy was transformed in the tenth century, and from that time onwards Hungarians are rather depicted as leading a sedentary lifestyle.¹¹³ There is evidence to indicate they used the plough, the sickle and the scythe, along with hand-mills.¹¹⁴ Once the Hungarians settled in the Carpathian Basin they adapted their lifestyle to the local environment, because they could no longer pursue herding along rivers, as the river valleys were inaccessible due to extensive flooding for much of the year. At the same time there was no need to preserve the eastern pattern of herding since their new homeland offered a far more practical and easier possibility. On the once humid Great Hungarian Plain there was abundant spring pastureland, and the floodplain meadows provided sufficient hay

¹¹⁰ Tivadar Vida, ed., "The Migration Period", in: *Hungarian Archaeology at the turn of the Millennium*, edited by Zsolt Visy, (Budapest: Nemzeti Kulturális Örökség Minisztériuma-Teleki László Foundation, 2003), 283-320.

¹¹¹ The latest comprehensive summary on that topic: László Révész, "The Conquest Period" in: *Hungarian Archaeology at the turn of the Millennium*, edited by Zsolt Visy, (Budapest: Nemzeti Kulturális Örökség Minisztériuma-Teleki László Foundation, 2003), 326-327.

¹¹² Ferenc Gyulai, *Archaeobotanika: A kultúrnövények története a Kárpát-medencében a régészeti-növényzeti vizsgálatok alapján* [Archaeobotanics: A history of cultivated plants in the Carpathian Basin, based on results from archeo-botanical studies], (Budapest: József Kiadó, 2001).

¹¹³ István Fodor, "Economy and Society," in *The Ancient Hungarians*, 27-30.

¹¹⁴ Miklós Takács, Mária Wolf and János Gömöri, "Forts, settlements and crafts," in: István Fodor, ed., *The Ancient Hungarians: Exhibition Catalogue*, (Budapest: Magyar Nemzeti Múzeum, 2006), 57-61; For instance a scythe was found the 10-11th century earthen fort at Edelény (*The Ancient Hungarians*, 423), a sickle is known from the tenth-century settlement site at Harka-Kányaszurdok (*The Ancient Hungarians*, 425), and a 11-13th century iron socket of a plow is known from Kisszántó (today Santaul Mic, Romania), and Máriabesenyő (*The Ancient Hungarians*, 426, 429), besides, an additional iron ploughshare and an iron sickle was found at the earthen fort of Szabolcs (*The Ancient Hungarians*, 434). A pair of hand mills was found at Mátraszőlös-Kiszedomb (*The Ancient Hungarians*, 429). A recent summary: Péter Langó, "A Kárpát-medence X–XI. századra keltezett településeinek fém- és eszközei" [Tool finds from 10-11th century rural settlements of the Carpathian Basin], in „Fons, skepsis, lex” *Ünnepi tanulmányok a 70 esztendő Makk Ferenc tiszteletére*. Szeged: SZTE Történeti Segédtudományok Tanszék Szegedi Középkorász Műhely, 2010: 257-284; **Mária Wolf**, "Adatok a X. századi magyarság gazdálkodásához és életmódjához" [Data on the lifestyle and economy of the conquering Hungarians], in „Fons, skepsis, lex” *Ünnepi tanulmányok a 70 esztendő Makk Ferenc tiszteletére*. (Szeged: SZTE Történeti Segédtudományok Tanszék Szegedi Középkorász Műhely, 2010), 483-492.

throughout the summer after the spring floods receded. Scholars suggest that winter- and summer camp sites were sited fairly close to each other, which stimulated changes in lifestyle. According to recent opinion, it was the permanence of the winter campsites which promoted a permanence of settlement and the erection of stable houses instead of tents. These changes also led to a growing importance of agriculture, which had formerly played a more subordinate role.

The earliest documentary references from the eleventh century, such as the law codes of Saint Stephen,¹¹⁵ the deed of foundation of Tihany abbey from 1055,¹¹⁶ and the deed of foundation of Garamszentbenedek abbey (Hronský Beňadik, today in Slovakia) from 1075,¹¹⁷ clearly indicate that by that time the basic rural settlement-type became the villa (village, in Hungarian: falu). Beside the villa, the Árpadian Age documents refer to inhabited areas or cultivated fields, as terra, locus, sessio, and predium.¹¹⁸

The earliest villages or hamlets in the tenth to thirteenth centuries usually extended over large areas. Settlement morphology was mainly determined by natural features. Settlements are most often located near lakes, rivers, or streams, on higher levees or ridges that could not be reached by floods. As the results from archaeological investigations have shown, the buildings within the settlements were dispersed, and do not appear to be planned but rather occur as clusters of features. This aspect is often explained by the fact that the first villages were organized around the stables and pens of animals, defined by a ditch system, while the domestic residences were focused in one corner of the separated area. However, by the eleventh century there is documentary evidence suggesting that settlements had fixed borders.¹¹⁹

¹¹⁵ The texts of these laws are available in an edited version: *The Laws of the Medieval Kingdom of Hungary. Decreta Regni Medievalis Hungariae, 1000–1490*, edited by János Bak, et al. (5 vols. Idyllwild-Budapest: Charles Schlacks Jr., 1992-2010), vol 1, 1000-1031 (Idyllwild, 1999), 1-11.

¹¹⁶ It contains the first census of the Benedictine Abbey at Tihany. This text also contains the earliest known written text including words in Hungarian. Géza Érszegi, *The deed of foundation of Tihany Abbey* (Latin text, bibliogr. and historical context: Géza Érszegi, glossary: Éva Berta and Géza Érszegi, transl.: Brian McLean), (Veszprém: F. Szelényi House, 1993).

¹¹⁷ Hornyik, *Kecskemét város*, vol.1, 191-198. This charter is of great importance to the study region as one part of the abbey estates were located not far from Kecskemét, at Felső-Alpár, which was among the deserted village lands that was rented by Kecskemét as late as 1718 (Hornyik, *Kecskemét város gazdasági*, 57) In this charter for example *villa Piscatorum nomine Chonu*, *villa Kurth*, *villa Sagi* is mentioned beside *terra Alpar*.

¹¹⁸ Márta Belényesi, “Der Ackerbau und seine Produkte in Ungarn in XIV. Jahrhundert” *Acta Ethnographica Academiai Scientiarum Hungaricae* 6 (1958): 265–321; László Makkai, “Östliches Erbe und westliche Erbe in der ungarischen Landwirtschaft der frühfeudalen Zeit (10–13. Jahrhundert)” *Agrártörténeti Szemle* 16 (1974) Suppl. 1–53.; Laszlovszky, *Einzelhofsiedlungen*.

¹¹⁹ It is not possible to quote or refer to all excavation results, but I would like to refer to some recent summaries on this topic: Miklós Takács, “Az Árpád kori köznépi lakóház kutatása, különös tekintettel az 1990-es évekre” [The research of the Árpadian Age peasant house, with a special attention to the 1990s], in: *Népi építészet a honfoglalástól a 18. századig*, edited by Miklós Cseri and Judit Tárnoki (Szentendre-Szolnok: Szentendrei Néprajzi Múzeum-Szolnoki Damjanich Múzeum, 2001), 9-55 (with a short English summary), and most recently: Miklós Takács, “Árpád-kori falusias települések kutatása Magyarországon 1990-2005 között” [The survey of Arpadian Age rural settlements in Hungary between 1990 and 2005], in: *A középkor és kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (2 vols, Budapest: MTA Régészeti Intézete, 2010), vol 1, 1-21.

Field-walking show evidence for nucleated settlement, based on the intensive concentrations of find material over large areas measuring between 100-400m and 100-200m in size.¹²⁰ There is also evidence for dispersed farmstead-type settlements, based on the identification of small find concentrations covering areas measuring only 50-70m in diameter, and spaced 150-400m apart between obvious village locations. These farmsteads, as they have been characterised, have no direct connections or continuity with the “classic” isolated farmstead system of the early modern period. This settlement pattern, as József Laszlovszky has convincingly argued, is closely connected with the emergence of the infield-outfield field system and subsequently with the open field system.¹²¹

The principal structure of the earliest settlements is well known from excavations. A church was not built in every early village. The demand for baptism is first reflected in the law of Saint Stephen I, who declared that at least every ten villages should build one church. Scholars suggest that even at the end of the thirteenth century only half of the villages had a church, but in certain parts of the country only one fifth of the settlements possessed a church.¹²² The earliest cemeteries of the communities are often close to the settlement/s, as the continuation of the commoners’ cemeteries of the conquest period. Although some of these cemeteries in use until the twelfth century, most were abandoned in the late eleventh century. The deceased were then buried exclusively in the graveyards surrounding churches.

The most common features found on these settlements are the semi-subterranean houses, which are generally rectangular or quadrangular in plan with rounded corners.¹²³ The sides of the buildings ranged between 2m and 5m in length, and the walls of the houses were constituted partly of the pits themselves, while the above-ground level was usually constructed from wattling of wooden sticks daubed with clay.¹²⁴ In some houses the inner walls were covered with wood, or stone. Roofs were supported by two, or less frequently three wooden purlins, whose post holes are usually found on excavations. Roofs were most probably covered with reeds and thatching. The

¹²⁰ Takács, *Árpád-kori falusias települések kutatása Magyarországon 1990-2005 között*.

¹²¹ Laszlovszky, *Einzelhofsiedlungen*.

¹²³ Zoltán Bencze, Ferenc Gyulai, Tibor Sabján and Miklós Takács. *Egy Árpád-kori veremház feltárása és rekonstrukciója. Ausgrabung und Rekonstruktion eines Grubenhauses aus der Arpadenzeit*. Monumenta Historica Budapestinensia 10. Budapest: Budapesti Történeti Múzeum, 1999.

¹²⁴ On the development of the Árpadian Age house: Takács, *Az Árpád kori köznépi lakóház kutatása, különös tekintettel az 1990-es évekre*, and Takács, *Árpád-kori falusias települések kutatása Magyarországon 1990-2005 között*, Bencze et al., *Egy Árpád-kori veremház feltárása*.

Miklós Takács, “A 10–14. századi falvak régészeti feltárása a Kisalföldön (Kutatástörténet és perspektívák)” [The excavation of 10-14th century villages in the Kisalföld Region- historiographic perspectives] *Győri tanulmányok* 16 (1995) 5–50; Miklós Takács, “Falusi lakóházak és egyéb építmények a Kisalföldön a 10–16. században (Kutatási eredmények és további feladatok.) [Rural houses and other buildings in the Kisalföld Region between the 10th and 16th century- Research results and future research tasks], in: *A Kisalföld népi építésze (A Győrött 1993. május 24-25-én megrendezett konferencia anyaga)*, edited by Gyula Perger and Cseri Miklós, Szentendre–Győr: Szabadtéri Néprajzi Múzeum & Xantus János Múzeum, 1993, 7–53.

entrance was usually located on the southern or eastern side of the house, and it appears as a sloping ramp, but in a few cases steps are documented. Ovens built of clay or sometimes stone faced the entrance, or were built right at the entrance. Generally the base of the ovens was plastered with clay, into which animal bones, pebbles or pottery shreds were mixed. The houses had no chimneys, the smoke left through the door and the opening of the roof. The house floors were rarely plastered, and the only furnishing observed in these buildings is the so called “working pit” beside the entrance.¹²⁵ Some houses had a clay bench beside the oven (Figs 35-36).

There are numerous indications that various above-ground buildings were also regular features in early villages, however, the evidence for this is frequently destroyed by later agricultural activity. Archaeological surveys usually reveal traces of post holes and parts of plastered floors and in some cases timber-structures are documented, but little other detail of these buildings has survived. It is very likely that tents were also used. The conquering Hungarians arrived with a tradition of felt-making. Descriptions even from the mid-twelfth century mention numerous tents existing in villages, which were covered with felt.¹²⁶

Storage- and refuse pits¹²⁷ of various sizes, as well as external ovens¹²⁸ were present in these early settlements. Ditches are also continuously identified and their varied function has been interpreted as pens and as parts of drainage systems. Circular and rectangular ditches had been identified as pens for animals. Linear ditch features sometimes extend beyond the limits of most excavated sites, which makes their interpretation difficult.¹²⁹ Recent excavations also suggest that ditches may have separated various areas of the settlement and served as fences for small enclosed fields that were

¹²⁵ The exact role and function of these pits has not been solved. According to Klára Csilléry, these pits were to define the location where the family head in fact sat, while István Méri and Júlia Kovalovszki supposed that these pits were used for some production activities, such as weaving or spinning. See: Klára K. Csilléry, “Az Árpád-kori veremház ülgödre” [The ‘sitting-pit’ of the Árpadian Age house] *Néprajzi Értesítő* 52 (1970): 59–87; István Méri, “Beszámoló a Tiszalök-rázompusztai és Túrkeve-mórici ásatások eredményéről” [Preliminary results of the excavations at Tiszalök-Rázom and Túrkeve-Móric] *Archaeológiai Értesítő*, 81 (1954): 138-154.; Júlia Kovalovszki, *Településásatások Tiszaeszlár-Bashalmon (Bronzkor, III–IV. és XI–XIII. század)* [Settlement excavation at Tiszaeszlár-Bashalom (Bronze Age 3-4th century and 11-13th century)], (Fontes Archaeologici Hungariae, Budapest: Akadémiai Kiadó, 1980);, Miklós Takács, “Az Árpád-kor veremházak ülgödéről — két kisalföldi ásatás példái alapján” [About the sittingpit of the Árpadian Period], in: *Örömenélés*, edited by Péter Gróf and Katalin Varga. Budapest, 2001, 15-28; Takács, *Az Árpád kori köznépi lakóház kutatása, különös tekintettel az 1990-es évekre*, 15-29.

¹²⁶ 1147: Odo de Deoglio: De profectione Ludovici VII regis Francorum in Orientem in: *Catalogus Fontium Historiae Hungaricae*, edited by Albin F. Gombos Vol. III. 1938, 1718-1722. 1147: Otto, bishop of Freising: Gesta Friderici I imperatoris in: *Catalogus Fontium Historiae Hungaricae* edited by Albin F. Gombos Vol. III. 1938. 1766-1768.

¹²⁷ About Árpadian Age pits: Mária Béres, “Adatok az Árpád-kori gabonátárolás kérdéséhez” [Data on the deposition of cereals in the Árpadian Age] *Móra Ferenc Múzeum Évkönyve* 1987/1(1988): 25-35.

¹²⁸ István Méri, “Árpád-kori szabadban lévő kemencék” [Árpadian Age open-air ovens] *Archaeológiai Értesítő* 90 (1963): 273 – 280.

¹²⁹ József Laszlovsky, “Karámok Árpád-kori falvainkban. Talajfoszfát-analízis alkalmazása az árkok szerepének meghatározásában” [Corrells in árpadian Age villages: the employment of phosphate analyzes in the survey of ditches] *Archaeológiai Értesítő* 109 (1982): 281 – 285; István Méri, “Az árkok szerepe Árpád-kori falvainkban” [The role of ditches in Árpadian Age villages]. *Archaeológiai Értesítő* 89 (1962): 211 – 218.

later called porta (toft or croft), which were used to define areas of defined production as opposed to the space required for the large livestock herds of the community.¹³⁰

4.3 LATE MEDIEVAL VILLAGES IN THE DANUBE-TISZA INTERFLUVE REGION

The dispersed landscape of early medieval rural settlement was transformed in the late thirteenth-early fourteenth century with the emergence of nucleated villages, which became the dominant settlement form.¹³¹ It represents a significant transformation and was fundamentally influenced and accelerated by the demographic decline caused by the Mongol Invasion in 1241-1242.¹³² The role and effects of the Mongol Invasion are still being debated. Some interpretations suggest that it was a dramatic event, causing the destruction of 40-50% of the total population and the desertion of most habited places affected by the campaign.¹³³ More recent discussions argue that the overall loss of population might have been around 15-20%.¹³⁴ It is more likely that the impact was varied, with certain regions being affected in different ways and to different extents. According to György Györffy, the most critically destroyed part of the country were the plains of the central and southern part of the Danube-Tisza Interfluve Region, and severe destruction was caused by the Mongols in the southern-northern part of the territory east of the Tisza. In contrast, the hilly, mountainous regions of Transdanubia and Upper Hungary were less damaged (Fig 37).¹³⁵

¹³⁰ Laszlovsky, *Medieval field systems*, 436; István Tringli, "Pest megye a késő középkorban" [Pest County in the late medieval period], in: *Pest Megye Monográfiája I.*, edited by Attila Zsoldos, Budapest: Pest Megye Monográfia Közalapítvány, 2001, 99; Engel, *The Realm of St Stephen*, 213-215; Viktor Csányi, "Egy Árpád-kori falurészlet feltárt emlékei Székkutas határában" [The details of an Árpadian Age village near to Székkutas] *HOMBÁR Múzeumi Műhely* 5 (2008): 9-34.

¹³¹ Miklós Takács, "Nucleated and/or dispersed settlements from the Árpadian and Angevin Age in the West Hungarian region of Kisalföld" in: *Ruralia III. Conference Ruralia III - Maynooth, 3rd - 9th september 1999*. Památky Archeologické - Supplementum 14. Praha: Brepols, 2000, 240-251; Szabó, *A falurendszer*; Maksay, *A magyar falu*; Laszlovsky, *Einzelhofsiedlungen*; Engel, *The Realm of St Stephen*, Pálóczi- Horváth, *Az epusult középkori falvak*. Apart from monasteries or castles, which also constitute a special isolated settlement-form, there are data on isolated noble residences and farmsteads as well. See: Maksay, *A magyar falu*.

¹³² Two recent reviews on the Mongol Invasion: Márta Font, "The Crises of Medieval Society: The Mongol Invasion in Eastern and Central Europe", in: *Studies in Honor of Leonty Voytovych*, edited by Mikola Litvin (Lviv:Ivan Krypiakevich Institut of Ukrainian Studies of National Academy of Sciences of Ukraine, 2011), 691-698; József Laszlovsky, "'Per tot discrimina rerum' Zur Interpretation von Umweltveränderungen im mittelalterlichen Ungarn", in: *Umweltbewältigung (Die historische Perspektive)*, edited by Gerhard Jaritz and Verena Winiwarter, (Bielefeld: Verlag für Regionalgeschichte, 1994) 37-55. Additional overviews with extended literature on the Mongol Invasion: *Tatárjárás (1241-1242)* [The Mongol Invasion], edited by Ágnes Ritoók and Éva Garam, (Budapest: Magyar Nemzeti Múzeum, 2007); *Tatárjárás* [The Mongol Invasion], edited by Balázs Nagy, (Budapest: Osiris, 2004).

¹³³ György Györffy had formerly proposed that in the worstly affected parts of the country (Csanád and Csongrád counties) the loss was around 70-80%. Györffy, *Az Árpád-kori Magyarország*, 497; 700;

¹³⁴, Kubinyi-Laszlovsky, *Népességtörténeti kérdések*, 40-41.

¹³⁵ György Györffy, "Magyarország népessége a honfoglalástól a 14. század közepéig" [The population of Hungary until the mid-fourteenth century], in: *Magyarország történeti demográfiája*, edited by József Kovachich, (Budapest: Közgazdasági és Jogi Könyvkiadó, 1963), 45-62.

Regions	The percentage of lost villages
Southern part of the Danube Tisza Interfluve Region (County Bács and Bodrog)	45%
Middle part of the Danube-Tisze Interfluve Region (County Pest and Csongrád)	80%
The central part of the territory east of the Tisza (County Békés)	50%
The northern part of the territory east of the Tisza (County Bihar)	20%
The southern part of the territory east of the Tisza: (County Csanád)	75%
Transdanubia: plain or hilly area	15%
Transdanubia: mountainous region with forests	under 10 %
Upper Hungary	under 10 %

Table 1 The estimated measures of settlement desertion due to the Mongol Invasion (after Györffy, *Magyarország népessége a honfoglalástól a 14. század közepéig*)

The data suggest that destruction caused by the Mongols must have been devastating, some discussions compares its effects to the Black Death striking Western Europe a century later.¹³⁶ The trauma of the attack prompted a number of political changes, and speeded up social and economic processes of transformation. This period witnessed a number of additional changes, such as a development in the agricultural techniques.¹³⁷ It is at this time that the appearance and expansion of the heavy plough is indicated, along with the employment of crop rotation, which were obviously interconnected with major transformation in the landscapes of settlements. The general expansion influenced also the living standards of both the peasantry and the land-owning classes. This is reflected in the emergence of above-ground multi-roomed houses instead of the semi-subterranean hut, and the building of private representative residences respectively.¹³⁸ The late thirteenth and fourteenth centuries reveal evidence for transition in the pattern and morphology of settlements. Nevertheless, where documentary evidence is scarce or absent altogether, it is difficult to date exactly by archaeological means alone when a settlement was deserted. Even when a desertion stratum can be identified, questions will arise as to the factors which lay behind the desertion; whether it is possible to identify if a site was deserted ‘peacefully’, or ‘violently’. Did desertion result from a planned spatial reorganization of the area, or were the settlements cruelly damaged by aggression or military intervention?

¹³⁶ Engel, *The Realm of St Stephen*, 102.

¹³⁷ Belényesy, *Ackerbau und seine Produkte*, Laszlovsky, *Medieval field systems*.

¹³⁸ József Laszlovsky, “Social Stratification and Material Culture in 10-14th Century Hungary”, in: *Alltag und materielle Kultur im mittelalterlichen Ungarn*, edited by András Kubinyi and József Laszlovsky, (Medieval Aevum Quotidianum 22, Krems: Institut für Realienkunde, 1991), 32-68; Kubinyi-Laszlovsky, *Népességtörténeti kérdések*, 41-43

4.4 THE FIRST MAJOR WAVE OF SETTLEMENT DESERTION IN THE THIRTEENTH-FOURTEENTH CENTURY

The realignment in the settlement pattern was obviously a long and complex process. From the second half of the thirteenth century, written documents report the emergence of market towns (oppidum), a mixture of inhabited and deserted villages as well as unpopulated lands in the Hungarian countryside. Rural settlements are increasingly referred to as *possessio*, suggesting individual holdings, while the formerly common expression *villa* is less frequently used. Various permanently or temporarily uninhabited lands appear in written evidence as *predium*, from the late fourteenth and mostly in the fifteenth century. There were different levels of connections between the deserted and inhabited settlements. Most of the *predia* are integrated within the border of an inhabited settlement, and are recorded as appurtenances to villages, with no independent legal status or borders, such as the lands of the six deserted villages around Kecskemét, mentioned in 1456.¹³⁹ In addition, there are several forgotten village sites, which had been deserted for such a long time that the name of the former village only survived as a simple place name and the actual site of the settlement became cultivated. There were also some *predia* which represented recently depopulated villages, and which retained their autonomous borders and legal status. However, documentary sources indicated that the former arable fields, grassland, hayfields, or meadow of deserted village lands remained in use, regardless of the village's individual status.¹⁴⁰

This is a complex narrative of settlement change, but the perambulation of Cegléd in 1368 helps to illustrate the principal points from within the Danube-Tisza Interfluvium Region. During the walk, the examiners went by the common boundary of Cegléd with *possessio Irsa*, then crossed the major road (*via magna*) leading towards Buda, and went by a deserted stone church called *Cheke*, consecrated in honor of Holy Virgin Mary, which neighbored Sewegh possessions from the north (*ad unam ecclesiam lapideam ruptam Cheke nominatam in honorem B. Virginis constructam, que a plaga aquilonis vicinaretur terre possessionis Sewegh vocate*). From there the perambulation reached another church in honor of St Demetrius the martyr, which flanked a property called Zele (*unam aliam ecclesiam sub titulo b. Demetrii martyris constructam, cui a parte aquilonis vicinarentur terre possessionis Zele vocate*). They proceeded to a third similarly deserted church called Zewkeghaz (*ad terciam ecclesiam lapideam similiter ruptam Zewkeghaz nominatam*), and later arrived at the fourth deserted church called *Kylsewheges*, neighbored by possession *Reukas*

¹³⁹ MOL DF 97.635. The six deserted villages were: *Juhász egyház, Koldus egyház, Kolos egyház, Hetyn egyház, Ballóság et Terech egyház*. See: Hornyik, *Kecskemét város gazdasági fejlődése*, 11-12; *Kecskemét története*, 66.

¹⁴⁰ Maksay, *A középkori Magyar falurendszer*, 78-82; Tringli, *Pest megye*, 102-108.

from the east (*ad quartam ecclesiam lapideam similiter ruptam Kylsewheges nominatam, cui a parta orientis vicinarentur terre possessionis Reukas*) (Fig 38).¹⁴¹

In this case, the document names four damaged churches, obviously indicating the sites of deserted villages, which by that time all merged into the territory of oppidum Cegléd. Luckily, the written data can be further interpreted, as the deserted village sites around Cegléd were mapped, systematically surveyed and partly excavated by Edit Tari, who highlighted the difficulties when defining or interpreting the number of rural settlements, or changes in the thirteenth-fourteenth-century settlement network.¹⁴² Her investigations not only identified the churches mentioned in the document, but she located four additional churches by excavation, and nine further Árpadian Age deserted church sites by field walking. In her review of the evidence, she discusses some twenty-nine Árpadian Age churches in the southern part of Pest County (Fig 39). Settlement desertion and nucleation is documented in various parts of the country during the thirteenth-fourteenth centuries. Nineteen deserted churches were identified at Kiskunfélegyháza in the area of the later town.¹⁴³ Twenty-one church sites were documented and a further ten church sites were interpreted at Kiskunhalas,¹⁴⁴ In Gyula, five deserted church sites were located in the closest boundary of the town,¹⁴⁵ and several deserted church sites were located at Debrecen,¹⁴⁶ while at Paks, thirty-one deserted churches were identified in the neighbourhood of the settlement.¹⁴⁷ The research of deserted church-sites reveal that by the early thirteenth century a dense network of villages existed: the average distance between them were two to four-five kilometers.¹⁴⁸

In the Danube-Tisza Interfluvium Region this rearrangement and nucleation of settlements was intermingled with the arrival of the Cuman people from the second half of the thirteenth century. The settlement and integration of the Cumans was a special adjustment to existing frameworks and

¹⁴¹ Bártfai-Szabó, *Pest megye*, 84-86.

¹⁴² Edit Tari, *Árpád-kori templomok Cegléd környékén* [Árpadian Age parish churches in the surroundings of Cegléd], (Studia Comitatus 22, Szentendre: Pest Megyei Múzeumok Igazgatósága, 1991); Edit Tari, *Pest megye középkori templomai* [The medieval churches of Pest County], (Studia Comitatus 27, Szentendre: Pest Megyei Múzeumok Igazgatósága, 2000).

¹⁴³ Szabolcs Rosta, "Pusztatemplomok Kiskunfélegyháza környékén" [Deserted medieval churches around Kiskunfélegyháza] *Cumania* 20 (2003): 113-172.

¹⁴⁴ Zsolt Gallina, "Árpád-kori és középkori templomok Kiskunhalas környékén" [Árpadian age and medieval churches around Kiskunfélegyháza], in: *Halasi Múzeum. Emlékkönyv a Thorma János Múzeum 125. évfordulójára*, edited by Aurél Szakál Aurél, (Kiskunhalas: Thorma János Múzeum, 1998), 83-108.

¹⁴⁵ Imre Szatmári, "Középkori falusi templomok régészeti kutatása Gyula határában (Implom József ásatásainak hitelesítése)" [Medieval rural churches in the boundary of Gyula: the authentication of the archaeological survey by József Implom], in: *Tanulmányok a gyulai vár és uradalma történetéhez*, edited by Dénes B. Jankovich, (Gyulai Füzetek 8, Gyula: Békés Megyei Levéltár, 1996) 9-100.

¹⁴⁶ Lajos Zoltai, *Települések, egyházak és egyházatlan falvak Debrecen város mai határa és külső birtokai területén a XI-XV.-ik századokban* [Settlements with and without churches in the present day boundaries and the other possessions in the 14-15th century], (Debrecen: Méliusz, 1925).

¹⁴⁷ András K. Németh, "Mostan helyét az eke hasítja és a szél fojdogálja" Középkori templomok Paks környékén (Mutatvány egy készülő megyei összefoglalásból) ["Now the site is being cut by the plough and blown by the wind" Medieval churches around Paks: specimen from a county review] *Paksi Múzeumi Füzetek* 3 (2003): 3-41.

¹⁴⁸ Tari, *Pest megye középkori templomai*, 193; László Koszta, "Az egyház és intézményei" [The church and its institutions], in: *Pest Megye Monográfiája*, edited by Attila Zsoldos (Volume I/2, Budapest: Pest Megye Monográfia Közalapítvány, 2001), 195-219.

potential prospects of the area. Accordingly, the settlement history of the Danube-Tisza Interfluve Region in the late medieval period cannot be discussed without reviewing the arrival and settlement of the Cumans.

4.5 THE SETTLEMENT OF THE CUMANS

The history and archaeology of the Cumans has long been an important research field in Hungary. The publications of András Pálóczi-Horváth, László Selmeczi, Ferenc Horváth, and Gábor Hatházi revealed the proto-history, the circumstances of their arrival into the Hungarian Kingdom, and the process of their assimilation.¹⁴⁹

As with other ethnic groups in the medieval Hungarian Kingdom, such as the Pechenegs and Jassians, the Cumans formed a separate group in society, and their legal status was defined by the laws of King Ladislaus IV in 1279. They had been nomadic livestock herders in the steppe similar to the Hungarians in the tenth century, who were now fleeing the Mongol advance. However, as Nora Berend argued, the arrival of the Cumans in the Carpathian Basin was not as conquerors but as guests. Their reception was based on previous negotiations, which resulted in their dependent status on the sedentary host society. The Cuman laws in 1279 declared their main rights and duties, among which was a principal premise that they should be baptized, and that they should leave their tents and felt houses to live peacefully as sedentary Christians in fixed houses.¹⁵⁰

The evidence supports this development, and the material remains of the first generations of settlers seen in burial customs reflect their eastern traditions of pagan burials for both high-born Cumans and among the graveyards of commoners.¹⁵¹ The evidence for settlement indicates an organized process. Cumans were allowed to move into special and defined territories of the Kingdom, onto depopulated royal estates as well as private lands. In the Danube-Tisza Interfluve

¹⁴⁹ Some important publications: Pálóczi Horváth, *Pechenegs, Cumans, Iassians*; Pálóczi-Horváth, *Steppe traditions and cultural assimilation*, 91-302; Hatházi, *A kunok régészeti emlékei a Kelet-Dunántúlon*; László Selmeczi, "A szállástól a faluig: Adatok a magyarországi kunok településtörténetéhez" [From dwelling to settlements: data on the settlement history of Cumans], in: *Falvak, mezővárosok az Alföldön*, edited by László Novák and László Selmeczi, (Nagykőrös: Arany János Múzeum, 1986), 193-213; László Selmeczi, "Régészeti-néprajzi tanulmányok a jászokról és a kunokról" [Archaeological-ethnographical study on the Jassians and the Cumans] in: *Folklór és Etnográfia 64*, edited by István Ujlaky, (Debrecen: Kossuth Lajos Tudományegyetem Néprajzi Tanszék, 1992); Horváth, *A csengelei kunok ura és népe*, Horváth, *Új régészeti szempontok a kunok korai letelepedéséhez*; for the latest results of Cuman studies in Hungary, see: *Kun-Kép: A magyarországi kunok hagyatéka. tanulmányok Horváth Ferenc 60. születésnapja tiszteletére* [Cuman-Image: The legacy of the Cumans in Hungary. Studies in honor of the 60th birthday of Ferenc Horváth]; edited by Szabolcs Rosta, (Kiskunfélegyháza: Kiskun Múzeum, 2009); Nora Berend, "Cuman integration in Hungary" in: *Nomads in the sedentary world*, edited by Anatoly M. Khazanov and André Wink, (Richmond: Curzon, 2001), 103-127.

¹⁵⁰ Berend, *Cuman intergration in Hungary*, 103-104.

¹⁵¹ András Pálóczi-Horváth, "Régészeti adatok a kunok viseletéhez" [Archaeological data on the costume of the Cumans], *Archaeologiai Értesítő* 109 (1982):89-107; Pálóczi-Horváth, *Hagyományok, kapcsolatok*; Pálóczi-Horváth, *A balota pusztai középkori sírletet*, Gábor Hatházi, "14. századi ruhakorongpár Sárospárdól és viselettörténeti kapcsolatai. Gewandscheibenpaar des 14. Jhs aus Sárospád und seine trachtgeschichtlichen Beziehungen" *Archeologiai Értesítő* 114/1 (1987-1988) 106-120, Horváth, *A csengelei kunok ura és népe*.

Region, this settlement area is located from Nagykőrös to Subotica in the south; in the area east of the Tisza River they occupied lands between the Berettyó and the Temes rivers; and along the right side of the Danube they settled in the Mezőföld Region (Fig 40). The Cumans were organized on the basis of extended family clans, called auls, and each lineal group settled in distinct areas, led by chieftains (comes or capitaneus). Scholars suggest that by the fifteenth century these tribal settlement zones had developed into separate administrative units, called seats (sedes, in Hungarian: “szék”), and that the captains of these seats were administrative heads rather than family leaders.

In the Danube-Tisza Interfluvium Region, most probably two Cuman tribes were settled; the Csertán clan (Chertan or Čurtan ‘pike’) were located in the southern territories of the area, and the Iloncsuk clan (Ilunchuck ‘small snake’),¹⁵² in the north close to Kecskemét-Jakabszállás. The landscape was not entirely empty, and a number of local communities survived the Mongol Invasion. These included the emerging market towns of Kecskemét and Nagykőrös, and village sites such as Monostor, Szentlőrinc, Felsőalpár and Lak. The earliest pattern of Cuman settlement on these lands is poorly documented, and it is supposed that in the second half of the thirteenth century and the first decades of the fourteenth century the Cumans did not have fixed settlements but temporary “dwelling sites” (descensus; in Hungarian: szállás). Written sources cannot help here because, similarly to Hungarian settlements more generally, the earliest Cuman camps are not recorded in the thirteenth century documents. The task is not entirely impossible however, and both toponymic evidence and archaeology provide some insight. The appearance of Turkic names together with the –háza, –laka –szállása suffixes (‘house’ or ‘dwelling’ of someone), such as Orgoványszállása or Bugacháza is thought to be one indication of such settlement, and it has been suggested that these placename elements predate Christian name-giving, which spread through the Cuman community only in the 1340s.¹⁵³

The permanency or temporality of the earliest sites attracts divergent views, which is closely related with the question of whether the Cumans lived a nomadic lifestyle in the Carpathian Basin or to what extent nomadism was even viable. The lack of written documents and some early references such as circa or in circuitu of dwellings has been interpreted as signs of Cuman nomadism in the thirteenth century.¹⁵⁴ Although the possible traces of yurts, the emblematic features of nomadism, were documented at several excavation sites (including Orgondaszentmiklós,¹⁵⁵ Petőfiszállás-Tőzege,¹⁵⁶ Csengele-Fecske¹⁵⁷), it is not clear yet, whether

¹⁵² It has to be noted here that there are many uncertainties around the existence and origins of this clan. György Györffy, “A kunok feudalizálódása” [The feudalization of the Cumans], in: *Tanulmányok a parasztság történetéhez Magyarországon a 14. században*, edited by György Székely, (Budapest: Akadémiai Kiadó, 1953), 248-275.

¹⁵³ Pálóczi-Horváth, *A kunok megtelepedése Magyarországon*, Hatházi, *A kunok emlékei a Kelet-Dunántúlon*, 103; Berend, *The integration of Cumans*.

¹⁵⁴ Selmeczi, *A szállástól a faluig*, 193.

¹⁵⁵ Selmeczi, *A szállástól a faluig*, Selmeczi, *Régészeti-néprajzi tanulmányok a jászokról és a kunokról*.

these sites were more or less stable, permanent (winter) camps or part of a series of temporary camp-sites dating from the second half of the thirteenth century. The published archaeological material of those settlements interpreted as early Cuman sites so far does not show any distinctive character in terms of settlement features, morphology or material culture from contemporary Hungarian villages; and the special problems with the chronology of archaeological material, especially the pottery finds, makes the dating problematic.¹⁵⁸ Recent reviews argued that the late appearance of written sources from the mid-fourteenth century is not necessarily an indication of the late appearance of permanent sites; these were present most probably much earlier. It can rather be connected to the transformation of the clan organization of the Cumans towards a hierarchially structured settled society, when the Cuman elite made efforts to gain ownership or receive land from the king.¹⁵⁹

Several sources mention conflicts between Hungarians and Cumans because of the damages done by the Cumans' herds as late as the fifteenth century, and this material may also suggest elements of a nomadic existence. However, herding is not particular to nomadic lifestyles at all, and is also referenced to Hungarians all over the kingdom. Such unsupported biased usage adds further confusion rather than clarity. Perhaps the notice of such damages is more useful as a means for examining local conflicts associated with property damage and the management of different field system regimes instead of clashes between nomadism and sedentary lifestyle.¹⁶⁰

With respect to Cuman topography, the studies of Gábor Hatházi in the Mezőföld region and Szabolcs Rosta in the Kiskunság revealed that one part of the Cuman settlements occupied former, most probably deserted village sites from the late thirteenth century, where Cuman settlement and cemeteries are the direct continuations of earlier settlements (such as Szentkirály or Ágasegyháza). Rosta has also highlighted another group of Cuman dwelling sites in the late fourteenth and fifteenth century, where no earlier habitation could be detected (Bugacháza, Orgoványszállása).¹⁶¹ There are only accidental documentary evidences on the Cuman system of temporary dwellings, which can be only partially connected to the archaeological topography of the area. Therefore it is hard to or define exactly how many inhabited sites existed, and estimate how much of the former Cuman dwellings survived and developed into village nuclei by the late fifteenth century. As a general tendency, archaeological surveys suggested that that a certain number of these dwellings were probably abandoned before 1500 (such as Bugac, Matkó and Köncsög) (Fig 41).

¹⁵⁶ Erika Wicker, "Titokzatos körök" a petőfiszállási határban" ["Mysterious circles" in the boundary of Petőfiszállás], in: *A Jászkunság kutatása: Tudományos konferencia a Kiskun Múzeumban 2000. szeptember 21-22. Jászvári Könyvtár 5.*, edited by Erzsébet Bánkiné Molnár, Edit Bathó and Erika Kiss, Jász Múzeumért Alapítvány: Jászberény, 2002, 9-20.

¹⁵⁷ Ferenc Horváth, *A csengelei kunok ura és népe*, 228.

¹⁵⁸ Hatházi, *A kunok régészeti emlékei*, 192; Rosta, *Újabb eredmények*, 198.

¹⁵⁹ Berend, *The integration of Cumans*; Rosta, *Újabb eredmények*.

¹⁶⁰ This aspect will be further analyzed in the chapter about land management.

¹⁶¹ Rosta, *Újabb eredmények*.

The desertion of Cuman dwellings in the fifteenth century was surely influenced by an epidemic around the mid-fifteenth century, which, according to the contemporary sources left many dwellings deserted.¹⁶² Still, this process of desertion and nucleation most possibly signals an important stage in the process of the Cumans' intergration: the last step towards assimilation into the surrounding settled society. There are not enough data to explain which Cuman dwellings had better chances to survive and develop (Fig 42).

Seemingly, there is not much difference among dwellings which occupied earlier deserted Árpáadian Age village sites, and those sites with no former habitation; there are examples for development and desertion in both cases. Nevertheless, as a general tendency, it seems that most of those villages that survived into the sixteenth century are among those sites which occupied earlier deserted Árpáadian Age village sites, such as Szentkirály, Bene, Baracs, Lajos or Mizse. At the same time, it seems that fifteenth-century dwelling sites with no known Árpáadian Age predecessor were more likely to disappear, like Bugac and Zomokzallas (Fig 43).

Ecological factors, such as fertility of soils and the economic capacity of fields must be an important, however not yet explored aspect of this process. Site location is another important factor in understanding the reasons behind this phenomenon. It seems that those sites which remained viable in the longer term were located along major routeways, suggesting indeed that the communication networks of the Árpáadian Age were still in use. The growth of large-scale animal husbandry, and more importantly, the expansion of animal trade might have served at least partly as a background for either survival or desertion. It is apparent that all villages which were probably involved in the raising and trading of animals are situated along major traffic routes. Lajos and Mizse are located on the road towards Pest; Szentkirály is positioned towards Szolnok; Szentlőrinc towards Csongrád; Jakabszállás and Orgovány towards the Madocsa ferry; and Kerekegyház, Baracs, Adacs towards Dunaföldvár or Ráckeve. According to the earliest mapping of traffic routes and medieval church ruins in the eighteenth century, it is apparent that the thoroughfares did not cross the villages, the settlements were rather located near or along these roads, which may be connected to the fact that these routes were used for the moving of large herds of animals (Fig 42, Fig 44).

¹⁶² There are a good number of documents from the 1470s which describe the attempts for repopulating Cuman lands, especially in the southern part of the Danube Tisza Interfluvium region (such as Othasylis, Cholyoszállása, Feyertho, Mayoszállása and Kempecczállása). Gyárfás, *Oklevéltár*, vol 2, 675, 677. Recent scholarly opinions connected this desertion with the plague epidemic after the Nándorfehérvár battle in 1456, which, according to contemporaneous reports severely hit the southern part of the Danube-Tisza Interfluvium as well. Hatházi, *A kunok régészeti emlékei*, 250; Rosta, *Újabb eredmények*, 194.

4.6 VILLAGES IN THE FIFTEENTH-SIXTEENTH CENTURY – INTEGRATION AND INNER DESERTION

Realignment within the rural landscape continued throughout the fifteenth and sixteenth centuries. The apparent nucleation process, producing a solid network of market towns and villages had come to an end by the second half of the fifteenth century. The earlier immigration of the Cumans established a new system, characterized by larger and coherent bodies of lands owned by Cuman landlords, lying between market towns and smaller ‘islands’ of Hungarian villages (such as Monostor, Szentlőrinc, Felsőalpár and Lak).

The earlier temporary ‘dwelling sites’ were replaced by a solid network of nucleated Cuman villages, whose morphology, architecture, and material culture reflect a comprehensive cultural integration with and assimilation to Hungarian culture.¹⁶³ Particular locations remain defined as either Cuman or Hungarian, but the degree of assimilation is such that it is a challenge for archaeologists studying this later period to define clear cultural distinctions. It is problematic to detect or follow, whether nationality of the landowner, which is among the principal information that the scarce documentary evidence may contain defines the nationality or composition of the population: it is highly possible that Cuman people or people with Cuman progenitors lived or appeared in villages owned by Hungarian landlords, and it is possible that Hungarian peasants lived on the lands of Cuman landlords.¹⁶⁴ It has been argued that a special mixed fashion of Cuman and Christian/Hungarian-type artefacts, especially jewels and costume decorations, appeared in the fifteenth century in the areas where Cuman and Hungarian population lived side by side, but it remains a point of discussion whether this truly reflects cultural distinctions.¹⁶⁵

It seems in general that the number, location and most probably the size of the village-infields did not change considerably between 1500 and 1600, as the majority of those villages which were inhabited around 1500 were likely to be recorded as inhabited places during the sixteenth century in the study area (Fig 45). However further enquiry reveals evidence for internal changes. There are, for instance, noticeable numbers of uninhabited plots identified in the documents that lie beside the inhabited tofts within the infield area of villages, and this feature indicates that the village was not a static framework, but remained a dynamically transforming

¹⁶³ At the same time, the Cumans were exempt from ordinary jurisdiction, their judicial cases were presented before the the *nádor* (*comes palatinus*, who also bore the title *iudex Cumanorum*); they had to set out light cavalry units in the royal army, and they paid their annual royal taxes in one sum.

¹⁶⁴ For instance, in 1347, *Kuchmeg*, captain of the Cumans from the *Chertan* kindred allows for twelve Cumans living in felt tents to move to the lands of *magister Theteus*. Gyárfás, *A jáász-kunok*, vol 3, 484-485.

¹⁶⁵ See: V. Székely, *Kun kulturális elemek*, Sárosi, *Régészeti kutatások Bugac-Felsőmonostoron*.

settlement type in the Great Plain Region.¹⁶⁶ For example, in the northern part of Pest County, in the villages of Szada and Veresegyház, owned by the Rozgonyi family, among the 77 peasant plots (*sessio*), there were 52 *populose* and 25 *deserte et habitatoribus destitute*, which means that 29% of the plots were deserted in 1461. Szada and Veresegyház were surveyed again in 1492, and this revealed a greater proportion of deserted plots, and a general decrease in the total number of registered plots. There was a total of 68 plots in the two villages, 37 of which were deserted, indicating that 54% of the settlement was uninhabited.¹⁶⁷ A comparable set of information is available from the socage contract of Lajos and Mizse dating from 1567¹⁶⁸ and 1577.¹⁶⁹

Lajos	1567	1577
integrae sessiones	8	7
inquilini with houses	4	2
noble tofts	7	7
Total:	19	16

Mizse	1567	1577
integrae sessiones	28	24
inquilini	2	6
noble tofts	2	2
domus deserta	2	not mentioned
sessio deserta	10	not mentioned
Total:	44	32

Table 2 The proportion of tofts as recorded in the socage contract of Mizse and Lajos in 1567 and 1577 (after Bende-Kürti, *Bene, Lajos és Mizse oklevelei*, 67-68, 72-75.)

At Mizse in 1567, 22% of the presumed total sessiones were deserted, reflecting a similar situation observed at Szada and Veresegyház fifty years earlier. It is possible that four peasants with full-size

¹⁶⁶ See: András Kubinyi, “A Jagelló-kori Magyarország történetének vázlata” [The draft history of Hungary in the Jagiellonian Period] *Századok* 128 (1994): 288-314; and the latest summary on the topic: Tibor Neumann, “Telekpusztásodás a késő középkori Magyarországon” [Desertion of infield plots in late medieval Hungary] *Századok* 137(2003): 849–884.

¹⁶⁷ Tringli, *Pest megye*, 109-110.

¹⁶⁸ Benedek-Kürti, *Bene, Lajos és Mizse oklevelei*, 67-68.

¹⁶⁹ Benedek-Kürti, *Bene, Lajos és Mizse oklevelei*, 72-75.

plots (*integrae sessiones*) in 1567, were recorded among the *inquilini* ('pauper' or 'cotter' in Hungarian: 'zsellér')¹⁷⁰ in 1577.

The pattern for settlement desertion within villages is apparent by a notable decrease in the number of *portae*, the basic unit of taxation.¹⁷¹ Yet, this tendency does not evidently mean a demographic decline; one possible interpretation of the documentary evidence is the initiative and adaptation of peasants to the system of taxation itself: as from the 1330s every *porta* (more or less identical with the concept of 'household') were to pay one florin yearly in royal tax, many peasants living formerly in individual households found it more profitable to live together, meaning that one *porta* possibly housed more families/households.

In addition, when speaking about desertion of inner plots, it cannot be neglected that possibly a large proportion of the deserted plots was cultivated, thus from the economic point of view, a part of these plots remained cultivated fields in a way that plots were let by the landowner to peasant families, or to *inquilini*, who did not live on the plot, but cultivated the fields belonging to it.¹⁷² Potentially, in 1567, the two *inquilini* at Mizse cultivated the lands belonging to the two *domus desertae*. Accordingly, it is possible that the lease of uninhabited plots was a profitable enterprise for both the landowners and the tenants.¹⁷³

4.7 SETTLEMENT DESERTION IN THE OTTOMAN OCCUPATION PERIOD

The Ottoman Occupation Period (1526-1686) has been considered as the second major period of village desertion in Hungary, and the desertion process has been explained as the direct consequence of the continuous conflict associated with the Ottoman invasion of Hungary.¹⁷⁴ New research on historical records indicates a more complex process behind such desertion, and recognizes that the process of desertion was already going on in the fifteenth century, long before the Ottoman's arrival.¹⁷⁵

In my opinion, another aspect in the interpretation of village desertion in the Ottoman Occupation Period, while not ignoring the effects of the long-lasting conflict period in the sixteenth

¹⁷⁰ *Inquilinus* was a legal category for peasants in the late medieval period, who possessed less than one-eighth of a plot or no lands at all. These people paid less or no taxes, for instance they did not pay the customary tithe to the Church, but only 'Christian money'. There were 'householders' among the *inquilini*, and there were 'houseless' *inquilini*, who were living together with a peasant family as servants. Nevertheless, not all *inquilini* was poor; many were involved in handicrafts, or rented uninhabited lands from landlords. Engel, *The Realm of St Stephen* 327-328; Neumann, *Telekpusztásodás a középkorban*, 849-884.

¹⁷¹ In 1437 400,000 *portae* were taxed in the Hungarian Kingdom, while in the late fifteenth century the number of *portae* was around 266,000. Engel, *The Realm of St Stephen*, 328-330.

¹⁷² Tringli, *Pest megye*, 108-110.

¹⁷³ Additional aspects of settlements' inner desertion will be discussed in Chapter 4.9.

¹⁷⁴ Szabó, *Az alföldi magyar nép*; Szabó, *A falurendszer kialakulása*.

¹⁷⁵ Ferenc Szakály, "A hódolt megye története" [The history of Pest County in the Ottoman Occupation Period], in: *Pest megye története*, edited by Attila Zsoldos, (Budapest: Pest Megye Monográfia Közalapítvány, 2001), vol. 1/ 2, 335-339.

century, is that the aim of the Ottoman occupation was not the depopulation of the occupied territories, but rather to maximise profit from the land, mainly through taxation. As a result, numerous quite detailed taxation lists (defters) were compiled for the conquered area.¹⁷⁶ The earliest roll was compiled in 1546, five years after Buda, the medieval capital was conquered, listing the names of all inhabited and deserted lands; the names of taxpayers; the presumed incomes, and the strengths as well as weaknesses of the given lands. Surprisingly, these rolls prove not only that the population of villages was stable throughout the sixteenth century, but show a slight increase in the number of inhabitants: for example the number of family heads in the seventeen inhabited villages around Kecskemét between 1546 and 1590 increased by 60%.

Name of settlement	Number of family heads in Ottoman defter rolls				
	1546	1559	1562	1580	1590
Adacs	2	4	7	38	32
Alsóalpár	13	11	12	28	25
Baracs	26	16	25	35	33
Bene	3	5	9	5	1
Felsőalpár	22	18	23	28	24
Ferencszállás	27	23	29	39	22
Izsák	13	20	20	35	38
Jakabszállás	9	9	6	7	1
Kerekegyház	14	25	39	48	41
Kisbalás	-	-	7	15	12
Lajos	24	18	31	32	16
Mizse	39	26	33	42	32
Orgovány	7	4	6	10	11
Pálka	23	20	39	47	39
Szabadszállás	-	11	37	50	48
Szentkirály	41	36	51	58	66
Szentlőrinc	33	17	44	45	37
<u>total:</u>	296	263	418	562	478
<u>average /village</u>	19,7	16,4	24	33	28

¹⁷⁶ Káldy-Nagy, *A budai szandzsák 1546-1590*; Káldy-Nagy, *A budai szandzsák 1559*.

Table 4: Number of family heads as recorded by the Ottoman defters (after the data by Káldy-Nagy, A budai szandzsák 1546-1590).

Yet, this tendency can only be partially explained with the fact that the population of the deserted settlements moved to these sites; documentary sources indicate that a considerable number of refugees arrived into the Danube-Tisza Interfluvium mostly from the southern parts of the country which were more harshly hit by the conflicts (for instance from Baranya County and from Szeged).¹⁷⁷

Besides this, data suggest that the overwhelming majority of fourteenth-fifteenth century villages were inhabited throughout the sixteenth century, and were depopulated only after 1590. The tax lists report on 337 villages in the central part of the Interfluvium Region in the sanjak of Buda between 1546 and 1590. Among them 39 had become deserted, and 11 deserted lands were repopulated during the period between 1546-1590, meaning a 8,3% desertion of all villages (Fig 46).¹⁷⁸ In terms of the study area around Kecskemét, the network of villages became visibly looser by the mid-sixteenth century: from the thirty-four identified late medieval settlements only seventeen were recorded as inhabited places by the date of the first defter roll in 1546. I collected the available documentary sources to illustrate the process of desertion in the study area. The following table gives an overview on the ethnic affiliation and changes in the inhabited/deserted status of settlements known from the period 1350-1590.

	Settlement name	ethnic affiliation /owner	status 1350-1450	status 1451-1545	status 1546-1590	date of desertion
1	Adacs	Cuman	possessio	possessio	village	after 1590
2	Ágasegyháza	Cuman	possessio villa	possessio	deserted	around 1546
3	Alsóalpár	Hungarian	villa	possessio	village	after 1590
4	Aranyegyház	?	(village)	(village)	deserted	?
5	Balbószeg	Hungarian	-	predium	deserted	before 1500
6	Baracs	Cuman	village	possessio	village	after 1590
7	Belchehorhan	Cuman	predium	-	-	before 1500
8	Bene	Cuman	villa	descensus	village	after 1590
9	Mindszent/Borbácsszállás	Cuman	terra vacua	(village)	deserted	before 1500?
10	Bugac	Cuman	-	descensus	deserted	before 1500
11	Buzganzallas	Cuman	descensus	-	-	before 1500
12	Chederhomoka	Cuman	predium	-	-	before 1500

¹⁷⁷ About the fluctuation of the population in the Ottoman period: *Kecskemét története*, 174-175.

¹⁷⁸ Calculated from the database provided by Gyula Káldy-Nagy, Káldy-Nagy, A budai szandzsák 1546-1590.

	Settlement name	ethnic affiliation /owner	status 1350-1450	status 1451-1545	status 1546-1590	date of desertion
13	Chokashege	Cuman	predium	-	-	before 1500
14	Félegyház	Hungarian	(village)	(village)	deserted	before 1500
15	Felsőalpár	Hungarian	possessio	possessio	village	after 1590
16	Felsőfilipszállás (=Buzganzallas?)	Cuman	-	-	deserted	
17	Ferencszállás(=Karacsór)	Cuman	?	?	village	?
18	Galambos	Cuman?	?	?	deserted	?
19	Gengelteleke	Cuman	predium	-	-	before 1500?
20	Homytha	Cuman	predium	-	-	before 1500?
21	Izsák	Hungarian	-	-	village	after 1590
22	Jakabszállás/Kwnjakabhorhan	Cuman	descensus?	descensus	village	after 1590
23	Juhászegyház	Hungarian	-	predium	deserted	before 1500
24	Kerekegyház		(village)	(village)	village	after 1590
25	Kisbalázs	Hungarian?	?	(village)	deserted village (after 1562)	after 1590
26	Köncsögszállás	Cuman	descensus	descensus	deserted	before 1500
27	Lajos	Cuman	possessio deserta sew predium	(village)	village	after 1590
28	Laka	Hungarian	-	possessio	deserted	before 1546
29	Matkó	Hungarian	-	-	deserted	before 1500
30	Mizse	Cuman	(village)	(village)	village	after 1590
31	Monostor	Hungarian	possessio	(village)	deserted	1525-1546
32	Moroczgata	Hungarian	possessio	-	-	before 1500?
33	Orgovány	Cuman	(village)	(village)	village	after 1590
34	Othasyilis szállása	Cuman	?	descensus	-	before 1500
35	Páh	Hungarian	(village?)	(village)	deserted	?
36	Pálka	Cuman		descensus	village	after 1590
37	Szabadbalázs	?	-	-	deserted	?
38	Szabadszállás	?	-	-	village	after 1590
39	Szentimre	?	?	?	deserted	?
40	Szentkirály	Cuman	terra vacua	(village)	village	after 1590
41	Szentkozma	Hungarian	-	-	deserted	before 1500
42	Szentlőrinc	Hungarian	villa, possessio	(village)	village	after 1590

	Settlement name	ethnic affiliation /owner	status 1350-1450	status 1451-1545	status 1546-1590	date of desertion
43	Zombatzallas	Cuman	deescensus	-	-	before 1500
44	Zomok	Cuman	descensus	-	deserted	before 1500

Table 3: The ethnic affiliation and status of late medieval settlements in the study area between 1350 and 1590. The table is based on the Appendix of the present thesis entitled The late medieval topography of villages around Kecskemét. The words in brackets mean that the definition was deduced from indirect or non-written (archaeological, hypothetized) data.

The available documentary sources indicate three major waves of desertions between the fifteenth and seventeenth century. The earliest signs of desertion have been indicated in connection with the Cuman dwellings, such as Köncsögszállás, and Bugac, Zombatzallas or Zomok, which were abandoned before 1500.¹⁷⁹ The greater part of those sites referred to as descensus in the fourteenth-fifteenth century appear as deserted land in the sixteenth century, or have disappeared from written records. This probably means that the earlier sites merged into the territory of other villages. It is also possible that the name of the settlement changed. It is noticeable that deserted lands were recorded independently in the sixteenth century, irrespective of who managed them, or when they were depopulated. For instance, among the uninhabited territories, puszta Juhásztelek and puszta Balbószeg are probably identical with Juhász egyháza and Ballóság mentioned already in 1456 as deserted lands, and belong to the appurtenances of Kecskemét. The individual recording of deserted lands may reflect a process whereby regardless of whether such lands were de facto part of Kecskemét's territory, de iure the puszta lands enjoyed a special legal status, which had to be registered individually.

The second wave of settlement desertion is recognizable in the 1520s-1530s. There is a group of villages among them Ágasegyháza, Borbásszállás and Monostor, which appear in documentary sources and/or archaeological material as inhabited sites even in the early sixteenth century, but the first Ottoman defter in 1546 records them as deserted lands. It is apparent that these lands soon became the puszta lands of Kecskemét, the major urban core of the region. Yet it is difficult to know to what extent the disappearance of settlements was the direct result of wartime destruction and depopulation, or whether it was a form of planned evacuation of settlements. The documentary sources suggest that there was no long break or intermission in the cultivation of the village lands, as large parts of the deserted lands were instantly rented and cultivated by the neighbouring villages or market towns. My hypothesis is that perhaps we see in this a pattern whereby landowners, many of whom fled to the northern part of the country after the battle of

¹⁷⁹ Rosta, *Új eredmények*, 194.

Mohács in 1526, depopulate their lands and require their (surviving) peasants to move to safer market towns, while the lords preserve their incomes by the leasing out of their lands to these settlements.

Within the sixteenth-century defter rolls, none of the seventeen inhabited villages recorded in 1546 became deserted until 1590. Without doubt it was especially the fifteen years' war between 1591 and 1606 which affected the pattern of settlements and resulted the last and most severe desertion in the area. From the early seventeenth century, the available tax rolls report the general destruction and abandonment of settlement sites: in the study area, the only inhabited settlements to remain were the market towns Kecskemét, Cegléd and Nagykőrös.

Yet, it has to be stressed that the abandonment of the settlements did not mean a vacuum in the land use; rather a well managed and consciously shaped system adapted to the environmental and historical challenges, as will be demonstrated in Chapter 8. Desertion is often discussed in terms of crisis and cultural regression but in the current context, it is perhaps more accurate to see settlement desertion as part of a dynamic process that continually adapts settlement patterns to maximise productivity and growth. The desertion of villages led to the growth of market towns, while isolated farms that remain in the countryside continued to play a crucial role, and these same sites became focal points in the eighteenth century when the large-scale distribution of farmstead allotments in the depopulated territories made these older farms natural focal points for the emergence of hamlets; often becoming the forerunners of later modern villages in the region.¹⁸⁰

4.8 THE MORPHOLOGY OF LATE MEDIEVAL VILLAGES

All studies agree that the main element which defined the character of late medieval Hungarian villages was the development and appearance of the streets, and the system of streets inside the settlements, which resulted in the fact that the infields of the settlements became more structured, and separated into individual holdings, plots. In this way, the private, the communal, and the public spaces inside a settlement became more visible and distinct.¹⁸¹

¹⁸⁰ About the re-population and redistribution of deserted lands see: Antal Juhász, *A Duna-Tisza közti migráció és hatása a népi műveltségre* [The migration in the Danube-Tisza Interfluvium and its effects on the popular culture], (Szeged: Csongrád Megyei Levéltár, 2005).

¹⁸¹ According to Brian Roberts' definition, public space means those areas such as streets or roads, where everyone has a right to go, both the inhabitants of the place and strangers, while communal places are typically those areas where the members of the community (and their stock) has a right to move freely, such as agricultural lands. Finally, private lands are associated with plots, houses or gardens. See: Brian Roberts, *Landscapes of settlements* (Routledge: London and New York, 1996), 65-66.

Settlement forms were mostly defined by the geographical endowments, including the ecological capacity, the field system and the legal conditions.¹⁸² Considering that each settlement has a unique history, and a special local character, there are many problems with studying morphological details or creating systems of classification in relation to medieval settlements.¹⁸³ This has led to a new trend in settlement-morphological studies, which does not aim at categorization of the settlement structure, but focuses on the separation and description of the individual elements, and the interpretation of geographical, historical, economic or social phenomena behind them, based on interdisciplinary source material such as cartographic, historical, or archaeological material.¹⁸⁴ Such processual approaches nevertheless inevitably consider the two principal morphological forms of settlement; namely, regularly and irregularly structured profiles. These principal distinctions occur throughout the source material, whether documentary, cartographic and archaeological in nature.¹⁸⁵

The most frequent type of regular settlement in late medieval Hungary was where the plots/houses were arranged in one or more rows along streets. Street villages (also referred to in scholarly literature as ‘row settlement’ and referred to in Hungarian as *utcás falu* or *szalagtelkes falu*) are present in documentary sources from the thirteenth-fourteenth century onwards), and normally had a regular village plan where plots were arranged in row(s) along the street(s) without including a village green.

There are medieval references to the variant forms of street-village, such as the so-called Angerdorf, (in Hungarian ‘*orsós falu*’), where there is a longitudinal spindle-shaped green between the two sides of the street. The Reihendorf, (Hungarian ‘*soros falu*’), was where the plots extend from the house to the border of the settlement. The Waldhufendorf, (Hungarian ‘*erdőtelkes falu*’), developed usually in mountainous regions, where the houses were situated in valleys along a watercourse, and the cleared plots run as unbroken fields from the houses to the forested areas.

¹⁸² Jenő Major, “Szempontok a faluépítési hagyományok kutatásának módszeréhez” [Aspects of surveying the traditions of village development] *Településtudományi Közlemények* 11 (1959): 3-16; Tibor Mendöl, *Általános településföldrajz* [General settlement geography], (Budapest: Akadémiai Kiadó, 1963); István Szabó, *A középkori magyar falu*, 121-124; Maksay, *A magyar falu*, 93; Báth, *Szállások, falvak, városok*, 124.

¹⁸³ Settlements may display various morphological forms both chronologically (its character may change during the centuries) or spatially (may incorporate more/various forms).

¹⁸⁴ The most influential works of this school are: Herbert Jankuhn, *Einführung in die Siedlungsarchäologie*, (Berlin: De Gruyter, 1977); and Helmut Jäger, “Das Dorf als Siedlungsform und seine wirtschaftliche Funktion”, in: *Das Dorf der Eisenzeit und des frühen Mittelalters*, edited by Herbert Jankuhn, Rudolf Schützeichel and Fred Schwind, (Göttingen: Vandenhoeck&Ruprecht, 1977), 62-80; Zatykó, *Medieval villages and their landscape*.

¹⁸⁵ Concerning the medieval period, the most influential historical studies on settlement morphology are the works of István Szabó and Ferenc Maksay. However, it has to be noted that they both concentrated on regions where the continuity of settlement and available cartographic as well as medieval documentary sources allowed detailed comparative studies, such as Transdanubia, or the north-eastern part of the Great Plain, while the central part of the Great Plain region is usually missing from their surveys, due to the lack of the two mentioned source types, and their pre-supposition that the Ottoman Occupation Period brought a fundamental break in settlement history there. Thus, in those regions poorly equipped with medieval documents, archaeological investigations have foremost significance to reveal medieval settlement forms. In the Great Plain region the archaeological surveys of András Pálóczi-Horváth, or László Selmeczi can be mentioned. István Szabó, *A középkori magyar falu*, Maksay, *A magyar falu*

It has been suggested recently that there were regional differences among the medieval row-settlement forms in the Carpathian Basin.¹⁸⁶ According to this hypothesis, there are six sub-variants of medieval village forms in Hungary based on legal, ecological and economic criteria:

1. Street/row villages of the Cuman settlement area in the Great Plain region, defined by spacious plots, loosely located houses, where animal husbandry played a decisive role in the field system. Examples include Szentkirály, Móric, Perkáta (Fig 47, Fig 48).
2. Peasant villages of the Great Plain with a noble residence, where the plots are narrower and the settlement form is less open, rather symmetrical, and the noble residence is located in the focus of the village. Examples include Nyársapát, Baracs (Fig 49).
3. Hospes village along a major road, with a structured, planned settlement form. Examples include Csót (Fig 50).
4. Street/row village of the 'noblemen with single holding' in central Transdanubia¹⁸⁷ typified by large, long houses, and spacious backyards. Examples include Sarvaly (Fig 51).
5. Waldhufendorf (erdőtelkes falu) of western Transdanubia, where only one side of the street was inhabited as a regular, closed row of plots, and the cleared plough fields run directly from the infields towards the woodland. Examples include Szentmihály (Fig 52).
6. Small market places of the Great Plain, are multi-street settlements, with a definite, more densely populated centre. Examples include Muhi, Ete, Szer (Fig 53).

The problem associated with this attempt at classification is that the author investigated the ten or twelve of best-researched medieval village sites in Hungary, and devised his six sub-types from this small if detailed sample. Rather than seeking to classify in this manner, the results also allow for an interpretation that recognizes the varied nature of medieval villages in Hungary and that most of them retained a composite character. Some of their elements can be described as recurring, typical features, while other attributes developed as a result of individual circumstances.

Among the irregular village forms there are two principal sub-types recognized, namely agglomerated villages (Haufendorf, Hungarian *halmazfalu*) and small dispersed settlements (Weiler, Hungarian *törpefalu* or *szeges*, *szeres településforma*) which both were identified in Hungary as possible settlement forms in late medieval Hungary. I would like to consider the agglomerated plans in more detail because they are more relevant in my study region.

The form which has attracted a lot of attention is the so-called *szálláskertes* settlement, and defined as 'settlements with double infields'. This settlement type was first identified by Gyula

¹⁸⁶ Pálóczi-Horváth, *Elpusztult késő középkori falvak morfológiai variációi*.

¹⁸⁷ About two thirds of the Hungarian nobility in the fifteenth century were called 'noblemen with single holding' (*nobiles unius sessionis*), who had no tenants at all, and their possessions consisted of the piece of land that they lived on. Engel, *The Realm of St Stephen*, 339.

Prinz,¹⁸⁸ and later described by the ethnographer István Györffy in the 1920s, based on the ground plans of early modern and modern cartographic sources. They argued that this settlement form might be a surviving element from an ancient nomadic settlement model, which was introduced in the Carpathian Basin from the eastern Steppe region with the conquering Hungarians, and remained a special and continuous structure into the modern period.¹⁸⁹ The principal argument was accepted¹⁹⁰ and later reformulated by subsequent scholarship¹⁹¹ but the questions regarding the origin and continuity of this settlement form have not been resolved satisfactorily until now. In his summary of the topic, Tamás Hofer contrasted the agglomerated settlements of Hungary with the numerous settlements with similar morphological character throughout Europe, demonstrating that agglomerated settlement form is not a unique Hungarian feature in European history, but rather one form of adaptation to economic and social circumstances.¹⁹²

Settlements with doubled infields are abundantly documented in cartographic and written sources from the late eighteenth century (Figs 54-57). The spatial distribution of this model shows that doubled or multiplied infields appear all over the Carpathian Basin in the modern period.¹⁹³ The doubling of the infields occurred around the central core of the settlement area, which is generally defined as a loose cluster of houses without a street or a plot system. At the same time, recent studies associated also street villages with such doubled infields.¹⁹⁴ The most characteristic feature of such settlement is a separated, circular zone of farmyards in the close neighbourhood or in the outfields of the settlement, which belong to each house.

Ethnographic studies revealed two main subtypes of such secondary infields defined by different agricultural techniques connected to the separating of grain after the harvest.¹⁹⁵ Farmyards with stables/open straw-yards (in Hungarian ‘istállós-nyíltszérűs szálláskert’) are typical in the Great Plain Region and associated with the open-air treading out (in Hungarian ‘nyomtatás’) of corn

¹⁸⁸ Gyula Prinz, *Magyarország teleülési formái* [The settlement forms of Hungary], (Magyar Földrajzi Értekezések III., Budapest: n.n., 1922).

¹⁸⁹ István Györffy, *Az alföldi kertes városok. Hajdúszoboszló és Hajdúböszörmény települése*. [Market towns of the Great Plain with garden agglomerations: Hajdúszoboszló and Hajdúböszörmény] 1926; István Györffy, *Az Alföld ősi magyar településmódja* [The ancient settlement morphology of the Great Plain] (Budapest: n.n., 1928); Györffy, *Magyar falu-magyar ház*.

¹⁹⁰ Ferenc Erdei, *Magyar város* [The Hungarian town], Budapest: Athenaeum, 1939.

¹⁹¹ Tamás Hofer, “Csűrök és istállók a falun kívül” [Barns and stables outside the village] *Ethnográfia* 83(1957): 377-421; Tamás Hofer, “A magyar kertes települések elterjedésének és típusának kérdéséhez” [About the spreading and type of settlements with outer garden-belts in Hungary], *Műveltség és hagyomány* 1-2(1960): 331-350; Tamás Hoffmann, *A gabonanneműek nyomtatása a Magyar parasztok gazdálkodásában* [The treading of corn in Hungarian peasant economy], (Budapest: Akadémiai Kiadó, 1963).

¹⁹² Tamás Hofer, “A hazai tanyarendszer és a másodlagos településszóródás külföldi példái” [Isolated farmsteads and examples of dispersed settlement outside Hungary], in: *A Magyar tanyarendszer múltja*, edited by Ferenc Pölöskei and György Szabad, (Budapest: Akadémiai Kiadó, 1980), 9-60.

¹⁹³ János Báth, “A magyar nyelvterület települési formái” [The settlement forms of the Hungarian speech area], in: *Magyar Néprajz IV. Anyagi Kultúra 3. Életmód*, edited by Attila Paládi-Kovács, (Budapest: Akadémiai Kiadó, 1997), 11-22; Báth, *Szállások, falvak, városok*, 72.

¹⁹⁴ Györffy, *Alföldi kertes városok*; István Márkus, *Kertek és tanyák Nagykőrösön a XVII-XVIII. században* [Gardens and farmsteads at Nagykőrös in the 17-18th centuries], (Kecskemét: Első Kecskeméti Hírlapkiadó Rt., 1943).

¹⁹⁵ Báth, *A magyar nyelvterület települési formái*, 11-13.

with animal labour, which usually took place next or near the arable fields (Fig 58). Farmyards with sheds and/or stables (in Hungarian: ‘istállópajtás szálláskert’) are mostly documented in the hilly and mountainous regions of Transdanubia and Upper Hungary, and linked to another method for processing cereals, namely threshing (in Hungarian: ‘cséplés’), which is carried out manually with a flail, usually inside or before the sheds. (Fig 58). In addition to the processing of corn, both types of yards were used as stalls for draught animals, and sometimes as winter stall for horses, cattle or sheep. Besides, the yards were important storage places for agricultural tools, hay and straw were also kept there, and sometimes grain was also temporarily stored in the yards. In that way the house in the infield-plot was used only for living as all agricultural activity was removed from there. On the whole, ethnographers argue that their individual legal character, their grouped location and their special economic function associated with processing and storage are the major attributes that separates farmyards from other production sites in the eighteenth-nineteenth century.¹⁹⁶

Relating to the origins of agglomerated settlement forms with doubled infields in Hungary, the two standard publications on medieval village morphology, namely the works of István Szabó and Ferenc Maksay left the question of continuity open. They claimed that there is no ultimate proof for the presence or absence of such special pattern, even if there are some documentary indications for irregular medieval settlements.¹⁹⁷ The presence of agglomerated settlements in the fourteenth and early fifteenth century period may be supported by a few examples, for instance in the case of land division, when no permanent or solidly built boundaries, such as plots, fences or streets are recorded inside the settlement area, except for typically the church. There are examples when the division is made with the help of a rope,¹⁹⁸ or typically the points of the compass were used to define borders in the infield area of the settlement instead of firm or built features such as streets or houses. One of the most frequently cited examples for that is Apáthy (today: Jászapáti in Szolnok county), which village was divided, in 1391.¹⁹⁹ During the proceedings only the points of the compass, the stone-built church and the *via magna* near the settlement were used for orientation in the infield area. However, it has to be noted that this village was deserted during the sixteenth century, and was repopulated around the turn of the eighteenth century. Consequently, the site of the settlement was continuous, but together with the population, after a hundred-year desertion, the villagescape most probably changed. Therefore there is no ultimate proof for the continuity of the agglomerated settlement morphology in this case (Figs 60-61).²⁰⁰

¹⁹⁶ Bárth, *Szállások, falvak, városok*, 70-85.

¹⁹⁷ Maksay, *A magyar falu*, 98-101; Szabó, *A középkori magyar falu*, 148-156.

¹⁹⁸ In 1320, the village of Gadna (Abaúj County) was divided into two parts with a rope. György Györffy, *Az Árpád kori Magyarország történeti földrajza* [The historical geography of Hungary in the Árpadian Period], (Budapest: Akadémiai Kiadó, 1963, vol. 1.), 83; Szabó, *A középkori magyar falu*, 149.

¹⁹⁹ Gyárfás, *Oklevéltár*, vol. 3, 512-518.; Maksay, *A magyar falu*, 99-100.

²⁰⁰ Szabó, *A középkori magyar falu*, 149-150.

In search of agglomerated settlement forms the missing or deficient documentary as well as cartographic data can be contrasted to the archaeological surveys of late medieval rural settlements the last decades. First, agglomerated settlements has to be separated from the dispersed villages which are archaeologically documented features in the Árpadian Age rural landscape, but, despite the seeming topographical similarities, functionally the two patterns cannot be connected, as they stand for diverse economic and social frameworks. In terms of the late medieval period, the archaeological investigations of from the 1920s convincingly proved that, in all parts of the Carpathian Basin, including the Cuman and Jassian settlement areas in the Great Plain, by the turn of the fourteenth century the overwhelming majority of villages must have been structured and arranged along streets, and the more or less regular placement of the houses indicate the presence of plot system.²⁰¹ In fact, there is not one single village among the surveyed or excavated late medieval sites in the whole Carpathian Basin, which would have yielded factual archaeological evidences for the existence of such agglomerated morphology.²⁰² Recent discussions on the topic argue that by the fifteenth century the street and the plot system became the basic and common feature of villages in the Hungarian Kingdom. This is also true for the fifteenth-sixteenth-century settlements of the Cuman and Jassian people.²⁰³ Moreover, the various features connected to animal husbandry and storage is always documented in the closest vicinity of village houses proving that the separation of these functions from the infield house-plot was most probably unknown in medieval rural villages.²⁰⁴ The continuity of sites and population is an additional debate in connection with the agglomerated village-plans. Both the desertion processes and the documented population movements between the sixteenth and eighteenth century propose that further targeted historical and archaeological research should address questions related to continuity of settlement and population. Thus, I suggest that the rare information on irregular or agglomerated settlements in the medieval period cannot be automatically connected to early modern patterns or interpreted as a continuous feature in the Hungarian settlement system.

²⁰¹ There are cases when there is smaller or larger hiatus among houses (for instance it was observed at Szentkirály, see Pálóczi, *A középkori falvak morfológiai variációi*, but this phenomenon alone does not indicate irregularity, as medieval documents often refer to uninhabited parcels, and even the presence of ploughlands inside the villages among inhabited plots. Szabó, *A középkori magyar falu*,

²⁰² Edit Sárosi, 'Landscape and the possibilities of archaeological topography', in: *People and Nature in Historical Perspective*, edited by József Laszlovszky and Péter Szabó, CEU Medievalia 5, (Budapest:CEU Department of Medieval Studies & Archaeologia, 2003), 313-343; Pálóczi-Horváth, *A késő középkori falvak*.

²⁰³ András Pálóczi-Horváth, "A kunok feudalizálódása és a régészet. Die Feudalisierung der Kumanen und die Archäologie", in: *Középkori régészetünk újabb eredményei és időszerű feladatai. (Az 1983. október 10-12-i szegedi tudományos ülésszak előadásai.) Neuere Ergebnisse und aktuelle Fragen der Mittelalterarchäologie in Ungarn*, edited by István Fodor and László Selmeczi, (Budapest: Művelődési Minisztérium Múzeumi Osztálya és a Magyar Nemzeti Múzeum, 1985), 93-104; Pálóczi-Horváth, *Steppe traditions and cultural assimilation*.

²⁰⁴ Ágnes Aszt, *Állattartó objektumok a középkori magyarországi falvakban* [Archaeological traces of animal husbandry in medieval villages], MA Thesis in Archaeology, Eötvös Loránd University, Budapest, 2000 (manuscript); Ágnes Aszt, "Gödörök a középkori magyar falvakban" [Sunken sties in medieval villages] *Arrabona* 43 (2005): 37-66.

In the same way as agglomerated infields, “gardens” or “farmyards” are also known from medieval documentary sources from outskirts of settlements, but it is possible to note that the special belts or conglomerations of farmyards, which are dominant features of the eighteenth-nineteenth century agglomerated village structure, are basically missing from medieval sources. There are references in medieval charters on “yards” or “gardens”, described as the ordinary appurtenances of peasant plots, mostly located as the continuation of the infield plot or situated in the close environs of the village.²⁰⁵ These were usually defined as orchards (*pomarium*, *hortus arborum fructiferorum*, *hortus frugum*), or vegetable gardens (*hortus olerum*, *hortus caulium*). Besides, a certain “cereal garden” (*hortus bladorum*) is referred to, but, there is inadequate data on whether these were only fenced arable fields or also some kind of storage function (granary?) is conceivable.²⁰⁶ Additionally, in Transdanubia there are abundant references on clearances also named as “gardens”, but these represented intensively cultivated arable fields.²⁰⁷

The term “garden” can be also associated with fourteenth-fifteenth century “field gardens” or “meadow gardens” which leads us to the development of the isolated farmsteads (‘tanya’ in Hungarian).²⁰⁸ Farmsteads are another typical settlement form and topographical element in the study area, whose history has been long researched in Hungary.²⁰⁹ Similarly to settlements with doubled infields, the earliest descriptions and discussions of the isolated farmsteads were written in the first decades of the twentieth century.²¹⁰ Among them the studies by László Papp and Kálmán Szabó are the most relevant surveys in relation to my study area.²¹¹ Beside them, it was István Márkus and Márta Belényesy who provided the most comprehensive methodological bases for later investigations.²¹² The isolated farmsteads of the Great Hungarian plain raised international attention as it is reflected in the book by A.N.J. Den Hollander.²¹³ Isolated farmsteads were revisited in

²⁰⁵ Szabó, A *középkori magyar falu*, 44-45.

²⁰⁶ Szabó, A *középkori magyar falu*, 47.

²⁰⁷ Belényesy, A *parlagrendszer kiteljesedése*, 327-329.

²⁰⁸ I will deal with those features that have topographical or morphological relevance here, while the legal and economic qualities of these field gardens will be discussed in *Chapter 8*.

²⁰⁹ Bárh, A *magyar nyelvterület településformái*, 28-36, 77-87.

²¹⁰ István Györffy, “A Nagykunság és környékének népies építkezése” [The vernacular architecture of the Nagykunság Region] *Néprajzi Értesítő* 11(1910): 1-18; István Györffy, “A magyar tanya” [The Hungarian farmstead] *Földrajzi Közlemények* 65(1937): 70-93; László Gesztelyi Nagy, *Magyar tanya* [Hungarian farmsteads], (Kecskemét: n.n., 1927); Károly Kaán, *Az Alföld problémája* [The problem of the Great Hungarian Plain], (Pécs: n.n., 1929). The isolated farmsteads around Kecskemét were first described in details as part of the description of Hungary in the nineteenth century: Ferenc Kubinyi and Imre Vahot, *Kecskemét és a kecskeméti puszták* [Kecskemét and its deserted pusztas-lands], (Magyarország és Erdély képekben, vol. 1, Pest: Emich Gusztáv Könyvnyomdája, 1853).

²¹¹ László Papp, A *kecskeméti tanyatelepülés kialakulása* [The development of the isolated farmstead system around Kecskemét] (Acta Litterarum Scientiarum Regiae Universitatis Hungaricae Francisco Josephinae, Szeged: Ferenc József Tudományegyetem, 1936); Kálmán Szabó, *Kecskeméti tanyák* [Farmsteads of Kecskemét], (Kecskemét: Kecskeméti Lapok, 1936).

²¹² Márkus, *Kertek és tanyák Nagykőrösön a XVII-XVIII. században*; Márta Belényesy, *Adatok a tanyakialakulás kérdéséhez. A telek és a magyar tanya középkori gyökerei* [Data on the development of the isolated farmsteads: the medieval origins of the ‘telek’ and the ‘tanya’], (Budapest: Néptudományi Intézet, 1948).

²¹³ A.N.J. Den Hollander, *Az Alföld települései és lakói* [The settlement and people of the Great Hungarian Plain], Budapest: Mezőgazdasági kiadó, 1980).

scholarly literature from the 1970s, among them the studies by István Balogh, István Rácz, István Orosz, István Szabó, Tamás Hofer, Tamás Hoffmann, Edit Lettrich, Antal Juhász, and János Bárh.²¹⁴ Modern scholarship clearly separated the isolated farmsteads from the farmyards of double-infield settlements in terms of their morphology and function.²¹⁵ The most important differences between farmyards and farmsteads are the following:

- farmyards are usually documented as a group of neighbouring sites, while farmsteads are located in isolation,
- farmyards are temporary dwelling sites for male family members and/or servants, while the ‘classic’ farmstead permanently houses the family,
- farmyards are functionally connected with the processing and storage of products and tools, while the farmstead is a complex production unit, whose economy is based on arable farming and small-scale animal husbandry,
- in legal terms both are defined as separated possessions, but farmyards are individual “plots” without land, while the concept of the farmstead include the dwelling house together with the land belonging to it.

Accordingly, isolated farmsteads are the substantive appurtenances of settlements where the house is an integral and inseparable part of the tenement. There are two main sub-types of farmsteads: appurtenance-type farmsteads (in Hungarian ‘tartozéktanya’) which are secondary economic production and storage sites of people who otherwise live in villages or towns; and ‘real’ isolated farmsteads (in Hungarian ‘farmtanya’) which are permanently inhabited and form economically self-sufficient units based on arable farming and animal husbandry. The roots and early forms of isolated farmsteads are usually connected with the appearance of so-called “field gardens” (in Hungarian “mezei kertek”) around market towns; the earliest examples for such sites

²¹⁴ The most comprehensive collection of essays on the farmsteads: *A magyar tanyarendszer múltja*, edited by Ferenc Pölöskei and György Szabad, (Budapest: Akadémiai Kiadó, 1980); additional relevant reading:

Edit Lettrich, *Kecskemét és tanyavilága* [Kecskemét and its isolated farmsteads], (Budapest: Akadémiai Kiadó, 1968); István Balogh, “Tugurium-szállás-tanya. Adatok a magyar tanya előtörténetéhez” [Tugurium-dwelling-farmstead. Data on the prehistory of isolated farmsteads] *Ethnographia* 81(1976): 1-62; István Balogh, “Az alföldi tanya gazdaságának” [The economy of farmsteads in the Great Plain Region], in: *A parasztság Magyarországon a kapitalizmus korában*, edited by István Szabó, (vol 1., Budapest: Akadémiai Kiadó, 1965), 429-479; Tamás Hoffmann, “A magyar tanya és a hagyományos mezőgazdaság üzemszervezetének felbomlása Európában” [The Hungarian isolated farmstead and the dissolution of the traditional economic structures in Europe] *Ethnographia* 88(1967): 130-137; László Novák, “Tanyavilág a három városban” [Farmsteads in the three towns] *A Falu* 18(2003): 73-78; Antal Juhász, *A szegedi táj tanyái* [Farmsteads in the landscape of Szeged], (Móra Ferenc Múzeum Közleményei 1982/83-2; Szeged: Móra Ferenc Múzeum, 1989); Bárh, *Szállások, falvak városok*.

²¹⁵ The development of the isolated farmstead system has abundant historical and ethnographical literature. here I would like to refer to a recent summary on the topic by János Bárh, where detailed historiography is available. Bárh, *A magyar nyelvterület településformái*, 11-88.

are revealed from the area of Kecskemét and Nagykőrös from the sixteenth century.²¹⁶ The documentary sources suggest that field gardens were present both in the close surroundings and the far-away puszta lands of Kecskemét. Since there are only occasional written data available on gardens, their topography or measures cannot be delineated in details. It seems that these were larger parcels of more or less neighbouring lands, which were used primarily for arable husbandry.²¹⁷ There are sporadic reports on the looks of the gardens; according to a reference from 1659, the garden was a fenced plough-land, there was a well, and some ‘living trees’ growing in the garden, but no buildings, or typical function associated with storage or processing of products is mentioned in this case.²¹⁸ In the sixteenth and seventeenth century it is noticeable that such field gardens (‘kertek’) are usually not associated with animal husbandry in the sources, however there are few data mentioning herds of animals being “among the gardens”.²¹⁹ It seems rather that for animal breeding there were separated areas in deserted village lands called dwellings or lodgings (in Hungarian ‘szállás’) in this period, where summer and winter stalls (in Hungarian ‘nyaraló’ and ‘telelő’) are mentioned together with the temporary habitation sites, lodgings (also called as ‘tanya’ in Hungarian documentary sources) of sheperds and herdsmen.

The town protocols suggest the great increase of allotted gardens from the last decades of the seventeenth century, which is reflected in the town statute from 1691 prohibiting the arbitrary occupation and parcelling out of common pastures and their transformation into plough-lands.²²⁰ The first decades of the eighteenth century witnessed an enormous expansion in parcelling of land on the deserted village lands, and from that period, temporary buildings or huts (‘gunyhó’ in Hungarian) are recorded on the old and new allotments which clearly indicate the functional transformation of the gardens (Figs 62-63).²²¹ By the second half of the eighteenth century buildings, sheds and stables were the ordinary features of gardens. The temporary or permanent habitation of citizens in the gardens caused problems for the town’s administration in terms of taxation and public safety, which is reflected in the records of the town protocols and town statues.

²¹⁶ About the role and development of gardens: László Makkai, “A mezővárosi földhasználat kialakulásának kérdései. A „telkes” és „kertes” földhasználat a XIII-XIV. században” [The development of market town land management: the “plot-based” and “garden-based” land use in the 13th-14th century]”, in: *Emlékkönyv Kelemen Lajos nyolcvanadik születése napjára*, edited by Attila Szabó T, (Kolozsvár: Erdélyi Tudományos Intézet, 1957), 463-478; István Balogh, “Kertek Debrecen környékén a XVI-XVII. században. Adatok a kertek és a kertes települések kialakulásához” [Gardens around Debrecen in the 16-17th century. Data on gardens and the development of farmyard gardens] *Ethnographia* 95(1984): 509-519.

²¹⁷ Arable farming and ploughing is typically mentioned in the context of gardens. (MJ I 85); There are also reports on controversies between neighbouring owners (MJ I 84)

²¹⁸ MJ I 65; In fact there is only one reference for hay being carried away from a garden, thus it cannot be declared whether the hay was typically stored in gardens. Szabó, *Kecskeméti tanyák*, 25.

²¹⁹ Alike to storage, it cannot be decide from the occasional documentary evidence whether these dataon being animals among the gardens represent a unique or an ordinary event- or whether these animals were kept for some time in the gardens or they were on their way from one pasture to another and thus crossed the garden area.

²²⁰ *Szabályrendeletek*, 41-44.

²²¹ Sources are cited at Papp, *A kecskeméti tanyatelepülés*, 103.

Despite all efforts by the magistrates, from the second half of the eighteenth century, a series of permanently inhabited isolated farmsteads existed in the Kecskemét area (Fig 64). Interestingly, as far it can be deduced from the sources, the concept of farmyards together with the agglomerated settlement form was unknown in Kecskemét, however, classic examples of this morphology developed in the neighbouring Nagykőrös and Cegléd or Fülöpszállás (Fig 56-57, Fig 65).

Relating to archaeological research of the isolated settlement forms, limited information is available from a major project in the region, namely the M5 motorway scheme, which has generated a series of short reports on the targeted field-walking and excavation carried out.²²² Fortunately the route of the motorway crossed the territories of two predia mentioned in 1456 as being property of Kecskemét, namely Ballószeg (Ballóság) and Hetényegyháza (Hetyn), and this has resulted in some important data being made available that provide information on the transformation process. Along the 13.5 km long section of the M5 route forty-four sites were recorded by field walking, dating from between the tenth and the eighteenth centuries: thirty-three sites had finds dated to the Árpadian Age, nineteen sites resulted finds from the late fourteenth-sixteenth centuries, while at twelve sites both periods were detected, including the site of a church at Ballószög. The role of such features and their place in the settlement structure has not been thoroughly studied, however, the statistics show a noticeably high number of identified sites from the late medieval period, none of which features were interpreted as ‘village site’ by the excavation leaders. In most cases late medieval and early modern features were indicated by a small amount of pottery observed by field walking. At Ballószög, along with traces of the Árpadian Age village, several late medieval features had been excavated, including a well, an oven, and three storage pits, several refuse pits, as well as few ditches.²²³ Similar features had been excavated near Szeged, and are identified as early farmsteads (Fig 66).²²⁴ Although the limited data from the publication does not allow for detailed consideration of the impact that this new information has on our understanding of the overall structure of the late medieval phase of the site. However, the presence of scattered late medieval features, the discovery of ditches and pits, and the lack of permanent buildings suggest that these objects can be associated with the occasionally visited, enclosed early field gardens or farmsteads of Kecskemét citizens, developing on the site of a deserted village.

In this context I suggest that targeted archaeological research (aerial photography, field-survey and excavation) of early-modern production sites has strong potentials in exploring the history of

²²² Erika Wicker, Rozália Kustár and Attila Horváth, “Régészeti kutatások Bács- Kiskun megyében (1990-1995)” [Archaeological Research in Bács-kiskun County (1990-1995)], *Cumania* 17(2001): 33-127.

²²³ Ibid.

²²⁴ Mária Béres. “Archäologische Angaben zur Einzelhöfe in der Türkenzeit zwischen der Donau und Theiß”, In: *Ruralia III. Conference Ruralia III - Maynooth, 3rd - 9th september 1999*. Památky Archeologické - Supplementum 14. Praha: Brepols, 2000, 69-82; Mária Béres, “Magányos települések a Kiskunság délkeleti peremén” [Isolated settlement features in the south-eastern edge of the Kiskunság Region], *Studia Caroliensia* 3-4 (2006): 323-330.

agglomerated and isolated settlement forms (Fig 67-69). The conscious linking of historical, cartographical and archaeological material provides additional evidences on the dating or continuity and function of the earliest horizon of isolated farmstead sites.

4.9 THE ELEMENTS OF THE LATE MEDIEVAL VILLAGE TOPOGRAPHY

In the previous pages, I showed that the development and the complexity of settlements can be modelled by the constant or changing pattern of special factors and elements in the village plan. In the following paragraphs, I will describe these characteristic elements of the villagescape.

4.9.1 STREETS

Compared to the significance of streets in the structure of settlements, less attention was paid to the survey of the streets themselves. Although most historical and archaeological literature on medieval villages underlines the importance of streets as morphological elements, we know less about the actual size, appearance or structure of medieval village streets; our knowledge about the streetscape comes largely from eighteenth-nineteenth century ethnographic parallels (Fig 70).

Written sources mention streets within village contexts from the early fourteenth century, where they are most often mentioned in the context of land division or the perambulation of boundaries, where the street is an important feature with which to define boundaries. There are no direct written sources highlighting streets within the medieval villages of the study area, so my examples are drawn from other parts of the Great Plain Region.

In contemporary Latin, “street” was translated in various forms, including *platea*, *contrata*, *ordo*, *linea* or *vicus*, and the line of the street was usually defined by the geographical characteristics of the site, such as a watercourse, natural ridges or slopes. However, there is data that suggest that in some cases the patron of the settlement might have directed or imposed the formation or the line of the streets. In 1460, at *possessio* Berwe (Szabolcs County), the sons of Stephen de Bathor, Andrew and Stephen occupied and destroyed two peasant plots, and forcedly developed a street on these fields.²²⁵

In many cases, a village would have more than a single street. Generally documents refer to streets in a generic way, such as “the street of the village”, “the minor street”, “the larger street.” Streets could also be defined by the directions of the compass, or the direction they in which they extend.²²⁶ Documents also preserve the names of streets, such as the *platea* Malunzegh and *simplex*

²²⁵ MOL DL 66955

²²⁶ In 1450, at the division of *possessio Zobozlo* (today Hajdúszoboszló), the minor street, the larger street, another street directed towards Debreczen are mentioned. MOL DL 73508.

platea Palazk dictus at Zabolch (Csanád County) in 1308,²²⁷ the Zakuli and the Touthutha streets in 1319 at Semlyen (Szatmár County),²²⁸ or the Kuhyd and the Vesveres streets at possessio Thorna (Torna County).²²⁹ Sources reveal that houses could be built on both sides of a street or only on one side.²³⁰

Streets are also mentioned in relation to weekly markets (*forum liberum*, *commune seu provinciale forum*).²³¹ As far as the right of marketing was a privilege donated by the king, the importance of the market to facilitate trade and exchange may explain why it is often featured in division charters. The documents do not always indicate where within a village the market was located, but on occasion they will include mention of the streets; in 1354, when *possessio Batur* in County Szatmár was divided, the site of the market is listed between *Pochyulch vicus* and *Wosuaryulcha vicus* ('Vásári utca vicus' that is Market Street).²³² The market place was not necessarily static or fixed. It could be easily moved from one site in the village to another, as it is testified by a charter from 1432, when, during the division of *possessio Kusaly* in County Zolnok, it was determined that the market should be kept in communal usage of the two parties, in a way that in one week the market should be held in *platea communa*, while on every other week *in portione possessionaria Nina*.²³³ Another interesting description comes from 1519, when, in connection with violent trespass (*actus potentie*) it was described that some men attacked *possessio Zombathel* in County Arad, and stole the pillory (*mediacrum wlgo pelenger*) from its main street, where the Sunday markets are held. The aggressors then carried and erected this pillory into another part of the village, where their possessions were located, in order to occupy the market rights for themselves.²³⁴

Streets are often referred to as locations of markets. Market locations were not always within the village, but even in these instances the proximity of the roadway to the market is evident; in 1431, at *tere* (sic) *usualis Maruskez*, between the town of Arad and the village of Mykelaka in Arad

²²⁷ Anjou Kori Okmánytár, vol. 2, 202.

²²⁸ Anjou Kori Okmánytár, vol. 5, 200.

²²⁹ MOL DL 13145

²³⁰ For instance in 1347, *Eghaztalan Perch* had three streets, two of which were populated at only side, while in the third streets houses were located at both sides. Anjou Kori Okmánytár, vol 31, p. 379-380.

Szabó, *A középkori magyar falu*, 134.

²³¹ The inner trade of medieval Hungary was recently summarized by András Kubinyi. András Kubinyi, "A belkereskedelem a késő középkori Magyarországon" [Late medieval inner trade in Hungary], in: *Gazdaság és Gazdálkodás a középkori Magyarországon: gazdaságtörténet, anyagi kultúra, régészet*, edited by András Kubinyi, József Laszlovszky and Péter Szabó, Budapest: Martin Opitz Kiadó, 2008, 229-253. The most recent review on medieval markets in Hungary was written by István Tringli. See: István Tringli, "Vásártér és vásári jog a középkori Magyarországon" [Market place and market rights in medieval Hungary], *Századok* 144 (2010): 1291-1345; Boglárka Weisz, "Vásárok a középkorban" [Markets in the medieval period], *Századok* 144 (2010): 1397-1455.

²³² MOL DL 4407

²³³ MOL DL 105490

²³⁴ MOL DL 29972

County, markets were held in an open territory that was forcedly ploughed, and one major part was fenced off from the public road.²³⁵

Archaeological insight is derived from the observation of streets in the course of settlement morphological studies where, based on the surveyed or excavated series of the houses, the line or the route of the street can be reconstructed. There has been less emphasis on examining the actual surfaces of the streets, but one exception is at Szentkirály and Muhi, where the size of the streets can be calculated from the approximate distance between the houses which lines both sides of the street. The distance between the houses varied between 15-20m, suggesting that the street might have been around 10 m wide. At Szentkirály, the excavated width of the street was 8-9 meters.²³⁶ (The excavated streets of Szentkirály will be presented in details as a case study in Chapter 5).

4.9.2 THE TOFT

The size, orientation and pattern of individual properties, or tofts, especially the infield plots are among the most characteristic features of village sites. However, the reconstruction of medieval plots is among the most complicated tasks in settlement surveys.

The modern perception of “toft” (Hungarian: “telek”) includes exclusively the inner plot-part (house + yard) of the toft and remarkably differs from the medieval concept. In the Árpáadian Age the toft was not only used to define the inner house-plot, but also indicated the cultivated fields (*terra culta* or *terra fimata*) in the croft, while the place of inhabitation was named as mansio. Scholars argue that the key element in the development of the standard peasant toft was that from the mid-thirteenth century the basis for the collection of the tenorial revenue called terragium changed; instead of the shifting residence areas of the inhabitants called mansiones, the basis for this tax became the cultivated fields of the village, which induced a process whereby the cultivated fields (crofts) became steadily more and more attached to the housing areas, and this fixed connection between the inner house plot and the part of the cultivated fields developed into the integral term of the toft.²³⁷

In the late medieval period the conception of the toft included both the inner plot, where the peasant house was located surrounded by a smaller farmyard, and the croft which included of the

²³⁵ MOL DL 29774

²³⁶ Edit Sárosi, „Újabb régészeti kutatások a középkori Szentkirály faluban” [The Preliminary Results of the Latest Archaeological Research at the Medieval Village of Szentkirály], in: *Kun-Kép. A magyarországi kunok hagyatéka. Tanulmányok Horváth Ferenc 60. születésnapja tiszteletére*, edited by Szabolcs Rosta, (Kiskunfélegyháza: Kiskun Múzeum, 2009), 233-242.

²³⁷ László Földes, “A telek földterület jelentése” [The history of the meaning ‘plot’ as a piece of land], *Magyar Nyelv* 67 (1971): 418-431; Ilona Bolla, *A jogilag egységes jobbágyság kialakulása Magyarországon* [The formation of the standard peasantry in Hungary], Budapest: Nap Kiadó, 1998; Laszlovszky, *Field Systems*, 435-437; László Solymosi, *A földesúri járadékok új rendszere a 13. századi Magyarországon* [The new system of tenorial revenues in Hungary in the thirteenth century], (Budapest. Argumentum Kiadó, 1998).

complete holding of agricultural lands belonging to the same unit. There are various expressions for the toft in the contemporary written sources, the most prevailing late medieval forms are: the *sessio*,²³⁸ *laneus*,²³⁹ *fundus* or *fundus curiae*,²⁴⁰ *fumus*²⁴¹ and *porta*.²⁴²

The size of the inner peasant holdings is usually measured by the royal *ulna* (Hungarian: “királyi öl”, approximately 3m in length)²⁴³ or the acre (Latin: “jugerum”, Hungarian: “hold”)²⁴⁴ was used, and there is data on local measurements as well.²⁴⁵ Historical research in particular has shown that any discussion of plot size must be aware of the fact that in the course of the fourteenth century there is a process of sub-division, whereby half tofts and quarter tofts appear, and there is even further sub-division on occasion. It is suggested that by 1500, the regular peasant holding was not bigger than a half-toft, and by the end of the sixteenth century, on average four peasants possessed one toft.²⁴⁶ Alongside sub-division, there was also a process of abandonment.²⁴⁷ As described above in Chapter 4.6, the desertion of plots occurred within villages and the deserted tofts were often rented and cultivated by the members of the community or sometimes external persons cultivated them.²⁴⁸

²³⁸ *Sessio* is the most common term for the toft used in the medieval Latin terminology of Hungary, meaning in Hungarian “ülése”, that is seating or seat.

²³⁹ *Laneus* (laan, lanium, lanfeuld, lehen) was mainly used in the western and the northern part of the country, where German settlers appeared. From the fifteenth century, *laneus* was used to define only the croft-part of the toft. C 116, Szabó, *A középkori magyar falu*, 13.

²⁴⁰ *Fundus* and *curia* had also various meanings: at a more general level it was used to indicate the peasant toft (*fundus curiae*) from the second half of the thirteenth century, however, the term *curia* partly meant noble residences (*curia nobilitaris*), and the king’s court (*curia regis*) as well. Ilona Bolla, *A jogilag egységes jobbágyság*, 209-232; Maksay, *A magyar falu középkori településrendje*, 116; István Feld, “Spätmittelalterliche Residenzen in Ungarn” *Château Gaillard* 15 (1992): 171-188; Gábor Virágos, *The Social archaeology of Residential Sites: Hungarian noble residences and their social context from the thirteenth through the sixteenth century; an outline for methodology*, (BAR International Series 1583, Archaeolingua Central European Series 3, Oxford: ChalvingtonDigital, 2006), 19-24.

²⁴¹ *Fumus* (Hungarian: “füst”) generally referred to the inner household-part of the toft. Also known as the basic unit of royal tax introduced in 1467 by King Matthias, which was collected after each household (not tofts), thus from the owners of half- or quarter tofts as well. *A magyar falu középkori településrendje*, 116.

²⁴² *Porta* became the most general term for the toft by the fifteenth century. Besides, the basic unit of state revenues introduced by King Charles I in 1336, collected *de singula porta*. In this context, the *porta* meant a complete peasant holding, which had a gate, where a carriage loaded with hay could enter. See: Bolla, *A jogilag egységes jobbágyság kialakulása*; Lajos Juhász, “A telek története: 1526-1648” [The history of the ‘telek’ from 1526 to 1648] *Századok* 70 (1936): 497-578; Solymosi, *A földesúri járadékok új rendszere a 13.századi Magyarországon*.

²⁴³ The length of the royal *ulna* (*ulna regalis*, *amplexus regalis*, *mensura regalis*) was defined and depicted in Werbőczy’s *Tripartitum* (I. Article Nr. 133, 47.§), which suggests that it was around 2.9-3.056 m. István Bodgán, *Magyarországi hossz- és földmértékek a XVI. század végéig* [Hungarian units of length and area until the end of the 16th century], (Budapest: Akadémiai Kiadó, 1978).

²⁴⁴ Meaning a territory in late medieval Hungary which is 12 royal *ulna* wide and 72 royal *ulna* long; around 7776 m²) Bodgán, *Magyarországi hossz- és földmértékek*.

²⁴⁵ For example at Csepely, in 1412, the dimensions of the inner peasant plots were defined as *septem ulnas Budenses cum media faciens*: here the *ulna* of Buda, also known as *budai rőf* or *posztórőf* in Hungarian was 58.4 cm. Bodgán, *Magyarországi hossz- és földmértékek*, 103; Zatykó, *Morphological Study on a 15th Century Village, Csepely*, 477.

²⁴⁶ Maksay, *A magyar falu középkori településrendje*, 118. It has to be stressed that the division of the inner holding did not automatically mean the division of the croft.

²⁴⁷ Such hiatuses were documented during the survey and excavation at Szentmihály and Sarvaly, which features were interpreted as deserted portae. Holl, *A középkori Szentmihály falu ásatása*, 161-177.

²⁴⁸ Neumann, *Telekpusztásodás a késő középkori Magyarországon*, 849-884.

Both historical studies and archaeological field surveys suggest that there were considerable regional differences in the toft-sizes, and that it is likely the tofts of noblemen were larger than peasant holdings. There are various calculations available for the average size of a plot: István Szabó claims that the frontage might have varied between 11 and 50 ulnae, which equates to 30-150m in size.²⁴⁹ Ferenc Maksay argues that the ordinary length of a plot might have been around 70 royal ulnae (80.01m) while the width was around 12 royal ulnae (13.716m).²⁵⁰ These calculations were observed by archaeological surveys at Szentkirály, where the houses were located 100-105m apart, indicating that the width of the spacious inner plot was around 70-75m, equating to 24 royal ulnae.²⁵¹ At Csepely, the division charter from 1412 and the systematic field survey of the deserted settlement suggested that the frontage width was around 18-20 m, which can be interpreted as the usual size of a half-inner plot.²⁵² Further plot-sizes can be reconstructed from the excavation results at Nyársapát, where the evidence indicated plot sizes of 16-24 m, and which are interpreted as representing half-plots. At Csőt 15-30m wide, plots were documented with apparently a planned layout; at Sarvaly 35-40m wide and larger, 56-60m wide plots were observed, and it is suggested that the sizes were influenced by the local geographical characteristics. Likewise, the hilly and woodland landscape influenced the layout of the plots at Szentmihály where the suggested widths of plots were 20m (Fig 71).²⁵³

4.9.3 HOUSES AND HOUSEHOLDS

The elementary structural components of the villages' infields are the house plots (or tofts). Within the built environment, the social space and the everyday life of the community is organized around the places of habitation, i.e. the houses. The development of the rural house, or the study of house-types has been at the forefront of ethnographic, historical and archaeological researches in Hungary since the late nineteenth century.²⁵⁴ The pioneering surveys conducted in the Great Plain region by Lajos Zoltai,²⁵⁵ István Györffy,²⁵⁶ Kálmán Szabó,²⁵⁷ László Papp,²⁵⁸ Márta Széll,²⁵⁹

²⁴⁹ Szabó, *A középkori magyar falu*, 22.

²⁵⁰ Maksay, *A magyar falu középkori településrendje*, 115.

²⁵¹ Pálóczi-Horváth, *A középkori falvak morfológiai variációi*, 366.

²⁵² Zatykó, *Morphological Study on a 15th Century Village, Csepely*, 167-193.

²⁵³ Pálóczi-Horváth, *A késő középkori falvak* 371-372.

²⁵⁴ Major summaries on the topic: Klára K. Csilléry, *A magyar népi lakáskultúra kialakulásának kezdetei* [The beginnings of the rural housing in Hungary], Budapest: Akadémiai Kiadó, 1982; Iván Balassa, *A parasztház évszázadai. (A magyar lakóház középkori fejlődésének vázlatja)*, (Békéscsaba: Tevan Andor Nyomdaipari Szakközép- és Szakmunkásképző Iskola, 1985); Attila Michnai, "Középkori népi építészetünk régészeti emlékei. Archáológische Denkmäler der mittelalterlichen volkstümlichen Baukunst Ungarns", *Folia Archaeologica* 32(1981): 225-240;

²⁵⁵ Zoltai, *Települések, egyházas és egyháztalan falvak*; Zoltai, *Debreceni halmok, hegyek, egyéb mesterséges és természetes emelkedések*.

²⁵⁶ Györffy, *Magyar falu, magyar ház*.

²⁵⁷ Szabó, *Az alföldi magyar nép művelődéstörténeti emlékei*.

²⁵⁸ Papp, *Ásatások a XVI. században elpusztult Kecskemétvidéki falvak helyén*.

²⁵⁹ Széll, *Elpusztult falvak, XI-XVI. századbeli régészeti leletek Csongrád vármegye területén*; Széll, *Elpusztult falvak, XI-XVI. századbeli régészeti leletek Szentes határában*.

Andor Leszih²⁶⁰ and Alajos Bálint²⁶¹ in the 1920s and '30s made it possible for the earliest summary of the regional development scheme to be drafted by Zsigmond Bátky in 1943.²⁶² In the post-WW II period, István Méri worked out the basic archaeological-methodological guidelines for the documented excavation and survey of medieval rural settlements, based on his complex work at Túrkeve-Móric and Tiszalök-Rázom.²⁶³ There is a large body of medieval settlement excavations from the 1960s onwards, from across the Carpathian Basin. Among them, one of the most significant village excavations of the post-WWII period was performed in the study area were conducted by András Pálóczi-Horváth at Szentkirály, which site is part of the present dissertation as case study. Other important surveys were carried out in the Great Plain region at Nyársapát, Karcag-Orgondaszentmiklós, Jászdózsa-Négyszállás, Tiszaug, Monostorossáp as well as in Transdanubia at Sarvaly Szentmihály, Csót, or Kána.²⁶⁴

In his latest summary on late medieval rural architecture, András Pálóczi-Horváth argued that a broad variety of peasant houses had developed by the late fifteenth-sixteenth century.²⁶⁵ A formal

²⁶⁰ Muhi : István Éri and Alajos Bálint, *Elpusztult középkori falu tárgyi emlékei: Leszih Andor ásatásai* [Muhi, a deserted medieval village: the excavations of Andor Leszih], (Budapest: Magyar Nemzeti Múzeum-Történeti Múzeum, 1959).

²⁶¹ Bálint, *A mezőkovácsházi település emlékei*; Bálint, *A középkori Nyársapát lakóházai*.

²⁶² Zsigmond Bátky, "Építkezés" [Building techniques], in: *A magyarság néprajza, vol. 1: A magyarság tárgyi néprajza*, written by Zsigmond Bátky, István Györffy and Károly Viski, (Budapest: Királyi Magyar Egyetemi Nyomda, 1943).

²⁶³ Méri, *Beszámoló a tiszalök-rázompusztai és túrkeve-mórici ásatások eredményeiről I*; Méri, *Beszámoló a tiszalök-rázompusztai és túrkeve-mórici ásatások eredményeiről II*.

²⁶⁴ The most recent summary on the topic: Tamás Pusztai, "A középkori falvak és mezővárosok régészeti kutatása" [Archaeological research of medieval villages and market towns], in: *A középkor és kora újkor régészete Magyarországon* edited by Elek Benkő and Kovács Gyöngyi, (Budapest: MTA Régészeti Intézete, 2010), vol. 1, 113-140.

Some relevant publications related to the late medieval villages: Alajos Bálint, "A középkori Nyársapát lakóházai. Kirche und Wohngebäude im mittelalterlichen Nyársapát. Vorläufige Mitteilung", *Móra Ferenc Múzeum Évkönyve* (1960-62): 39-115; Elek Benkő, "A nyársapáti udvarház és házak a középkorban" [The medieval manor house and the peasant houses at Nyársapát], in: *Quibus expedit universis*, edited by Erzsébet Ladányi, Budapest: ELTE, 1980, 53-92; Elek Benkő, "A középkori Nyársapát" [The medieval village of Nyársapát], *Studia Comitatus* 9 (1980): 315-424; Imre Holl and Nándor Parádi, *Das mittelalterliche Dorf Sarvaly*, (Fontes Archaeologici Hungariae Budapest: MTA Régészeti Intézete, 1982); Imre Holl and Nándor Parádi, "Nagykeszi középkori falu kutatása" [The archaeological survey at the medieval village of Nagykeszi] *Veszprém Megyei Múzeumok Közleményei* 16 (1983): 181-202; Imre Holl, "A középkori Szentmihály falu ásatása II, A házak a falukép, az írásos adatok tanulsága" [Excavation of the medieval Szentmihály village part II: the houses, the village scene and the documentary evidence] *Zalai Múzeum* 2(1990): 189-207; Katalin Vályi, "XIV-XV. századi falusi építmények Szer mezőváros területéről" [Fourteenth-Fifteenth century rural houses from the market town Szer], in: *Építészet az Alföldön I.*, edited by László Novák and László Selmeczi, (Az Arany János Múzeum Közleményei 6, Nagykőrös: Arany János Múzeum, 1989), 79-87; László Selmeczi, "Nomád települési struktúra a Nagykunságban (Orgondaszentmiklós XIV-XVI. századi település ásatásának eredményei)" [Nomadic settlement model in the Nagykunság Region. The excavations in the 14-16th century settlement at Orgondaszentmiklós], in: *Paraszi társadalom és műveltség a XVIII-XX. században, (Faluk – Mezővárosok – Tanyák)*, edited by Tamás Hofer, Eszter Kisbán and Gyula Kaposvári, (Budapest–Szolnok, 1974), 47-58; György Terei, "Az Árpád-kori Kána falu. Kána, a Village from the Árpadian Era", in: *A középkor és kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (Budapest: MTA Régészeti Intézete, 2010), vol. 1, 81-112; József Laszlovsky, "Későközépkori falusi lakóház Tiszaugon. Az alföldi lakóház kialakulásának kérdéséhez" [The late medieval rural house at Tiszaug. Data relating to the emergence of medieval peasant houses at the Great Hungarian Plain] *Studia Caroliensia* 3-4 (2006): 295-314; Laszlovsky-Rácz, *Monostorossáp*.

²⁶⁵ Pálóczi-Horváth, *Development of the late medieval house in Hungary*; Pálóczi-Horváth, *A késő középkori népi építészet régészeti kutatásának újabb eredményei*; Pálóczi-Horváth, *Az alföldi késő középkori falusi lakóház: vázzerkezetek és falazatok*.

and structural continuity of the sunken or semi-subterranean house-types was observed, mainly in the transitional period of the late thirteenth-fourteenth to the early fifteenth century. However, from the second half of the fourteenth century, the most common late medieval rural house-type became an above-ground free-standing, multi-room construction. The building was typically a three-roomed design with each room added to the end of the other forming a single linear structure. The residential area consisted of a living room in the front part of the house closest the street, and a kitchen in the middle part, with the third room being a pantry or barn at the rear of the building (Fig 72). In some cases a cellar(s) was added to the end of the house. The living quarters were accessed from the kitchen, while the barn had a separate entrance from the yard. The principal building material was sourced on what was available locally, and this influenced the development of regional differences. In the Great Plain region, which includes the present study area, houses were regularly built around a framework of upright timbers, which were connected with wattling, and daubed with clay (Fig 73).²⁶⁶ In Transdanubia, where wood and stone was more easily accessible, timber-framed (log) houses appeared. There were two main sub-types of these: one of which was built on a dry-stone foundation,²⁶⁷ the other of which was built above a pair of logs which were fitted to posts at the edges (Fig 74).²⁶⁸ There are also houses built entirely of stone.²⁶⁹ Brick appears relatively rarely as a building material of dwelling houses and the few examples that exist are found in minor village-like oppida, such as Ete, Segesd, and Szer.²⁷⁰

Medieval roofing is among the underrepresented fields of archaeology in Hungary. There are very few examples of still-standing village houses, all of which were re-built and re-roofed in modern periods, thus this feature cannot be studied in its original form. Consequently, the roof structure of medieval rural houses is reconstructed on the basis of excavation data on frames, and with the help of the available abundant ethnographical parallels from the nineteenth century.²⁷¹ The

²⁶⁶ This type was basically identified at all sites in the Great Plain region, the most important sites were: Szentkirály, Tiszalök-Rázom, Túrkeve-Móric, Orgondaszentmiklós, Perkáta, Ete, Szer, Csomorkány etc; see: Pálóczi-Horváth, *Development of the late medieval house in Hungary*.

²⁶⁷ The best researched examples for this type come from Sarvaly and Nagykeszi. Holl-Parádi, *Das mittelalterliche Dorf Sarvaly*; Tibor Sabján, "Késő középkori lakóházak rekonstrukciói: Sarvalyi példák" [Reconstruction of late medieval rural houses: examples from Sarvaly], in: *Népi építészeti a Kárpát-medencében a honfoglalástól a 18. századig*, edited by Miklós Cseri and Judit Tárnoki, (Szentendre-Szolnok: Szentendrei Szabadtéri Néprajzi Múzeum & Szolnoki Damjanich Múzeum, 2001), 391-421; Holl-Parádi, *Nagykeszi középkori falu kutatása*.

²⁶⁸ Such constructions were identified at Balatonszentgyörgy, or Szentmihály. Róbert Müller, "Adatok a Nyugat-Dunántúli népi építészetihez" [Data on the rural architecture of western Transdanubia] *Veszprém Megyei Múzeumok Közleményei* 11(1970): 195-212; Holl, *A középkori Szentmihályi falu ásatása II*.

²⁶⁹ For example at Alsóörs, Kővágóörs-Ecsér, Nagyvázsony-Csepely, Szentkirályszabadja, Vilonya. Pál Rainer, "Veszprém megye Árpád-kori és késő középkori falusi lakóházai" [Árpadian age and late medieval rural houses in Veszprém County], in: *A Balaton-felvidék népi építészete*, edited by Miklós Cseri and Emőke S. Laczkovits, (Szentendre-Veszprém: Szentendrei Néprajzi Múzeum), 1997, 93-110.

²⁷⁰ Vályi, *XIV-XV. századi falusi építmények Szer mezőváros területéről*; Miklós-Vizi, *Előzetes jelentés a középkori Ete mezőváros területén végzett kutatásokról*; Miklós-Vizi, *Adatok a középkori Ete mezőváros településszerkezetéhez*.

²⁷¹ About medieval roofing see Tibor Sabján, *Tetőfedések* [Roofs], (Budapest: Terc Kiadó, 2007); Tibor Sabján, "Lakóház és telek rekonstrukciója Szentkirályon, egy alföldi késő középkori faluban II [The reconstruction of a house and a plot in Szentkirály, a late medieval village in the Great Plain Region] in: *A középkori magyar agrárium*, edited by

available material suggest that roofs of late medieval rural houses were gabled, supported by purlins, covered with straw thatch or maybe in wooded areas woodtiles.

An important characteristic of these buildings is the presence of a complex heating system, where a round oven was fitted into the kitchen wall, and was matched on the other side of the wall in the living room with a rectangular tile-stove. The oven was heated from the kitchen, and a small round hearth stood in front of the mouth of the oven for cooking.²⁷² Consequently, the living room was free of smoke. The tiles of the stove were made of clay, partly as beaker-shaped tiles and flat, square, often glazed tiles, whose style and decoration resembled aristocratic or royal stoves and tiles in a simplified form (Figs 75-77).²⁷³

Recent studies agree that craftsmen were most probably present in villages as well in the market towns and the higher status towns, and that the craftsmen would have served the needs of the local community. László Szende has indicated that despite references in documentary sources to the presence of crafts in villages, there are only a few remains of workshops known from the excavations.²⁷⁴ There is a blacksmith's workshop from Sarvaly²⁷⁵ and a potter's workshop from Szigetszentmiklós,²⁷⁶ but for the purpose of the present study it is necessary to comment on the presence of mills and milling in villages, where we see evidence for both dry mills and watermills.²⁷⁷

Archaeological work has focused on the investigation of houses, but there is an increasing interest in the economic systems that defined villages more fully, and as a consequence one sees

Livia Nende and Gábor Körinczy, (Ópusztaszer: Ópusztaszeri Nemzeti Történeti Emlékpark Közhasznú Társaság, 2000), 151-182; Sabján, *Késő középkori lakóházak rekonstrukciói*, 391-420.

²⁷² At Tiszaug, József Laszlovsky identified an early transitional, version of that heating system in a typical, tripartite house that was erected at the very end of the thirteenth century or at the beginning of the fourteenth century, and was still in use in the second half of the fourteenth century. The building had beaker-shaped tile-ovens in the main room and also in the kitchen, with self-contained heating. Laszlovsky, *Későközépkori falusi lakóház Tiszaugon*.

²⁷³ Tibor Sabján, "Késő középkori népies kályháink nagytáji vonatkozásai" [Late medieval vernacular tile-stoves and their regional pattern], in: *Népi építéset a Kárpát-medencében a honfoglalástól a 18. századig*, edited by Miklós Cseri and Judit Tárnoki, (Szentendre-Szolnok: Szentendrei Szabadtéri Néprajzi Múzeum & Szolnoki Damjanich Múzeum, 2001), 281-330.

²⁷⁴ László Szende, "Középkori kézművesség" [Medieval craftsmanship], in: *Gazdaság és gazdálkodás a középkori Magyarországon*, 199-228. Here I quote the research results from two minor market towns, namely Ete, Mohi and Szikszó.

Zsuzsa Miklós and Márta Vizi, "Beiträge zum Handwerk des mittelalterlichen Marktfleckens Ete (Ungarn)" in: *Ruralia 6 Arts and Crafts in Medieval Rural Environment. L'artisanat rural dans le monde médiéval. Handwerk im mittelalterlichen ländlichen Raum*, edited by Jan Klapšte and Peter Sommer, (Turnhout: Brepols, 2007), 119-134; Tamás Pusztai, "16. század végi műhely leletei Mohiból: (I.-jelenségek, kerámialeletek, korhatározás)" [16th century workshop find from Muhi-I. archaeological features, pottery finds, dating] *Hermann Ottó Múzeum Évkönyve* 46 (2010): 187-221; and at last a recent tanner's workshop find from Szikszó: Tamás Pusztai, *Előzetes jelentés Szikszó, Táncsics M. u. 4-2 sz. alatt végzett megelőző feltárásról* [Preliminary report about the rescue excavation at Szikszó, Táncsics Street] (as accessed from: <<http://www.hermuz.hu/regeszet/archivum.html>>).

²⁷⁵ Holl - Parádi, *Das mittelalterliche Dorf Sarvaly*, 46-47.

²⁷⁶ Katalin Írásné Melis, "XIII. század falu és fazekastelep Szigetszentmiklós határában" [13th century village and potter's workshop in the boundary of Szigetszentmiklós], *Communicationes Archaeologicae Hungariae* (1991): 167-190.

²⁷⁷ Sándor Takáts, *Művelődéstörténeti tanulmányok a XVI-XVII. századból* [Cultural historical studies from the 16th-17th centuries], edited and published by Benda Kálmán, (Budapest: Gondolat, 1961); László Ferenczi, *Vízgazdálkodás a középkorban*; Szende, *Középkori kézművesség*.

new interest in the study of the inner farmyards and its built structures as well. Various features are noted from the farmyards, and are mostly connected to animal husbandry, and include pigstys, chicken pens, corrals or stables, which are typically located in the backyards of the toft. These buildings were typically built as small, rectangular or circular subterranean or semi-subterranean structures, constructed similarly to the dwellings of the Árpadian Age houses, with posts and a gabled roof covered with hay or straw. The walls however are generally rough and irregular, reflecting their functionality and temporary nature.²⁷⁸

Likewise, a range of objects were identified as sunken crop-storage pits, among them larger, rectangular sunken objects with an entrance of stairs or a ramp.²⁷⁹ Cellars were also visible features in medieval Hungarian villages, especially in major wine-producing regions such as Transdanubia, where both log- daubed²⁸⁰ and stone built cellars were identified, some of which were vaulted (Fig 78).²⁸¹

Wells are also typically found in medieval settlements, however, the location of most sites suggest that natural water resources were ordinarily used as water supplies. Wells are usually located between houses, suggesting communal use, but they can occur in a more clearly define private-use context (Fig 79).²⁸² Written sources distinguish dug-wells (*puteus profundus*) from running wells (*puteus effluens*), which were most probably built on or around natural springs.

²⁷⁸ Such farmyard buildings were excavated for instance at Jászdózsa-Négyszállás or Karcag-Orgondaszentmiklós, or at Szentkirály. László Selmeczi, “Építménytípusok a Nagykunság és a Jászság középkori településein” [Building types at the medieval settlements of the Nagykunság and Jászság regions], in: *Építészet az Alföldön*, (2 vols, Az Arany János Múzeum Közleményei 6, Nagykőrös: Arany János Múzeum, 1986), vol.1, 107-116; András Pálóczi-Horváth, “Agrártörténeti emlékek a középkori Szentkirály faluban. Gazdasági épületek a 4-4/a ház beltelkén” [Agricultural remains at the medieval village of Szentkirály: the farmyard buildings from the houses Nr. 4 and Nr. 4/a], *A Magyar Mezőgazdasági Múzeum Közleményei* (1988-1989): 69-94.

²⁷⁹ Pálóczi-Horváth, *Agrártörténeti emlékek*, 104; Pálóczi-Horváth, *The archaeological material of the households of the medieval village of Szentkirály*, 111–117.

²⁸⁰ Such construction was documented at Nagyvázsony-Csepely. Rainer, *Veszprém megye Árpád-kori és késő középkori falusi lakóházai*.

²⁸¹ The most famous and reconstructed examples are the cellars of Sarvaly (Holl and Parádi, *Das mittelalterliche Dorf*; Sabján, *Késő középkori lakóházak rekonstrukciói: Sarvalyi példák*), and there are cellars are also known from Veszprém county, where, apart from the still standing vaulted stone cellar of a nobleman from the turn of the fifteenth-sixteenth century, additional medieval stone-built cellars are known from Ecsér, Szentkirályszabadja, Páloznak (Rainer, *Veszprém megye Árpád-kori és késő középkori falusi lakóházai*), and interestingly, two stone cellars were excavated by László Papp and Kálmán Szabó at Baracs, in the Great Plain region, not far from Kecskemét (Papp, *Ásatások a XVI. században elpusztult Kecskemét-vidéki falvak helyén*, 139.).

²⁸² Wells in rural environment have attracted less attention in Hungary as in other parts of Europe. About the general research situation in Hungary: András Pálóczi-Horváth, “Puits des villages médiévaux en Hongrie. Wells of medieval villages in Hungary”, in: *Water management in medieval rural economy. Les usages de l’eau en milieu rural au Moyen Âge. Ruralia V. 27^e septembre–2^e octobre 2003*, Lyon / Villard-Sallet, Région Rhône-Alpes, France, edited by Jan Klápště, Památky Archeologické – Supplementum 17. Prague, 2005. 233–241. Here I would like to quote two more publications on medieval rural wells in environment from Hungary: Zsuzsa Miklós, “Die Holzfunde aus dem Brunnen des spätmittelalterlichen Paulinerklosters von Márianosztra-Toronyalja” *Archaeologica Academiae Scientiarum Hungariae* 49 (1997): 103–138; Zsuzsa Miklós, “Mittelalterliche Brunnen und Zisternen in der Komitaten Tolna und Pest” *Anteus* 26 (2003) 197-216.

At last, both archaeological and historical sources suggest that the house and the inner yard around it were detached from other communal and public spaces by fences²⁸³ or shallow ditches.²⁸⁴

4.9.4 PARISH CHURCHES & CHURCHYARDS

Among the communal and public spaces in villages, the church and the churchyard were of central importance. The presence of religious institutions and their setting not only influenced the settlement development, but had far-reaching effects on the landscape and influenced, for example, the pattern of boundaries and roads. Churches were usually the best-constructed buildings in the villages, and are often the only surviving features of deserted settlements above ground. The buildings or rather the ruins of churches were often the last visible sign of medieval villages, and have sustained the memories of lost settlements, and consequently represent a special form of material and immaterial continuity in the landscape. The collection and mapping of medieval church distributions has often been a primary tool for identifying the systems of villages in Hungary. There are several historical, art historical and archaeological surveys, which focus on the ecclesiastical landscapes of Hungary, and various catalogues of medieval churches, as well as rural monasteries are published.²⁸⁵ However, less is known about the development and history of

²⁸³ There are abundant documentary references on village fences. Szabó, *A középkori magyar falu*, 24-25, 44-45.

²⁸⁴ For instance at Szentkirály such bordering ditch was excavated at House Nr. 5. Pálóczi-Horváth, *Lakóház és telek rekonstrukciója*, 131.

²⁸⁵ It is not possible here to quote here all surveys on medieval rural churches. Here I would like to refer only to the most recent summaries and some relevant literature with a focus on the Great Plain Region of Hungary: Beatrix F. Romhányi, "A középkori egyházi épületek kutatása- eredmények és feladatok. (Research into Medieval ecclesiastical Buildings-Findings and Tasks)", in: *A középkor és a kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (Budapest: MTA Régészeti Intézete, 2010), 255-270; András K. Németh, "A középkori Magyarország egyházi topográfiai kutatása. Kutatástörténeti áttekintés. Topographical Research Concerning the Church in Medieval Hungary", in: *A középkor és a kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (Budapest: MTA Régészeti Intézete, 2010), 271-288.

On my study region and its neighbourhood see Ferenc Chobot, *A váci egyházmegye történeti névtára* [Historical name register of the Vác Diocese], vols 1-2, Vác: Pestvidéki Nyomda, 1915-1917; Gyula Szarka, *A váci egyházmegye és püspökei a török hódítás korában* [History of the Vác Diocese in the age of the Ottoman Occupation], (Vác: Kapisztrán Nyomda, 1948); Piroska Biczó, "Adatok Bács-Kiskun megye középkori építészetéhez" [Data on the medieval architecture of Bács-Kiskun County] *Múzeumi kutatások Bács-Kiskun megyében* (1986): 71-80; Zsolt Gallina, "Árpád-kori és középkori templomok Kiskunhalas környékén" [Árpadian Age and late medieval churches around Kiskunhalas], in: *Halasi Múzeum. Emlékkönyv a Thorma János Múzeum 125. évfordulójára*, edited by Aurél Szakál, (Kiskunhalas: Thorma János Múzeum, 1998), 83-108; Ferenc Horváth, *Álló és feltárt középkori templomok Csongrád megyében. Régészeti tanulmányok Csongrád megye középkori történetéhez*. [Standing and excavated medieval churches in Csongrád County. archaeological surveys in the history of Csongrád County], PhD Dissertation, Manuscript, Szeged, 1978; György Módy, "Debrecen környéke Árpád-kori egyházak települései kutatásáról, 1975-1985" [About the survey of Árpadian Age churches in the neighbourhood of Debrecen], in: *Paraszttság és magyarság. Tanulmányok Szabó István történetíró születésének 90. évfordulója tiszteletére*, edited by István Rácz, (Debrecen: Kossuth Lajos Tudományegyetem, 1990), 139-149; Zoltán Rácz, "Hajdú-Bihar megye középkori templomai" [Medieval churches in Hajdú-Bihar County] *Műemlékvédelem* 28 (1984): 75-80; Rosta, *Pusztatemplomok Kiskunfélegyháza környékén*; Imre Szatmári, "Középkori templomok kutatása Békés megyében" [The research of medieval churches in Békés County] *Archaeológiai Értesítő* 129 (2004): 195-213; Tari, *Árpád-kori falusi templomok Cegléd környékén*; Tari, *Pest megye középkori templomai*; Tari, *Középkori templomos helyek Pest megyében*. In addition, I would like to refer to two recent discussions on the topic (though both examples are from Transdanubia): Csilla Aradi, *Somogy megye középkori plébániahálózatának kialakulása és megszilárdulása* [The development of the medieval parishes in Somogy County] PhD Dissertation. Manuscript, Budapest, 2007; András K. Németh, *A középkori Tolna megye templomai* [The churches of medieval Tolna County], (Pécs: Publikon Kiadó, 2012).

ecclesiastical units, such as parishes or archdeaconries.²⁸⁶ This is due mainly to the lack of and inadequate nature of the contemporary documentary records and accompanying archaeological research of such matters. This has resulted in a situation where what is thought to have occurred is based largely on speculation.

Recent reviews of the ecclesiastical history of the Danube Tisza Inerfluve Region agree that the church organization of the central part of the Great Plain area probably had begun during the reign of King St Stephen (997/1000-1038), but it is possible that the framework was set up during the reign of King Andrew I (1046-1060) or King Géza I (1074-1077). The study area for the present thesis had been mainly associated with the Bishopric of Vác since the medieval period.²⁸⁷ The historical assessments demonstrated that the seats of the archdeaconries (Pest, Szigetfő, Vác (from 1336 Nógrád), Csongrád, Szolnok) coincided with the early focal places, such as county seats and major traffic intersections, while the territories of archdeaconries corresponded principally with the borders of landed properties, or administrative units such as the counties.²⁸⁸

It was demonstrated that there were no stable or closed parish-areas in the eleventh-twelfth centuries, and recent discussions argue that the earliest churches cannot be interpreted as parish churches, but rather as pastoral churches.²⁸⁹ The significance of the archdeacons decreased from the turn of the twelfth century, when they moved to the bishopric seats and became members of the chapters. At the same time, the importance of parish organization and parish priests increased (Fig 80).

The number of villages, where churches can be identified, increased noticeably at the turn of the twelfth-century; and this increase compares favorably with the development of the nucleated villages, suggesting that there is a direct relation between the consolidation of parish boundaries and

²⁸⁶ General literature on the topic with further bibliography: Marie-Madleine de Cevins, "Les paroisses Hongrois au Moyen Age", in: *Les Hongrois et L'Europe : Conquête et integration*, edited by Sándor Csernus and Klára Korompay, (Paris-Szeged: JATE-Paris III - Sorbonne Nouvelle (CIEH)-Institut Hongrois, 1999) 341-357., Marie-Madleine de Cevins, *Az egyház a középkori magyar városokban*, [The church in medieval Hungarian towns], (Budapest: Szent István Társulat, 2003); Pálóczi-Horváth, *Régészeti és demográfiai módszerek Árpád-kori településtörténeti kutatásainkban*; Aradi, *Somogy megye Árpád kori és középkori egyházszervezetének létrejötte és megszilárdulása*. On the development of parish system in Pest County: László Koszta, "Az egyház és intézményei a középkori Pest megyében" [The Church and its institutions in the medieval Pest County], in: *Pest megye monográfiája I/2: A honfoglalástól 1686-ig*, edited by Attila Zsoldos, Budapest: Pest Megye Monográfia Közalapítvány: 2001, 195-222, and László Koszta, "Dél-Magyarország egyházi topográfiája a középkorban" [The ecclesiastical topography of the southern part of the Great Plain], in: *A középkori Dél-Alföld és Szer*, edited by Tibor Kollár, (Dél Alföldi Évszázadok 13., Szeged: Csongrád-Megyei Levéltár, 2000), 51.

²⁸⁷ László Koszta, "A váci püspökség alapítása" [The foundation of the Vác Bishopric] *Századok* 135 (2001): 363-375.

²⁸⁸ One important exemption is the archdeaconry of Csongrád, which had authority on the northern part of Csongrád County, while the southern part of the county belonged to the Szeged Archdeaconry of the Kalocsa Diocese.

²⁸⁹ Pastoral churches were founded basically for the promotion of baptism in Hungary in the eleventh century. Such churches might have been built by the Church/Bishop or the King, but in terms of control, pastoral churches were straightly connected to and directed by the Bishop; his scopes of authority were not restricted by any secular authorities. General literature on the development of parish system in Hungary with further bibliography: Elemér Mályusz, *Egyház és társadalom a középkori Magyarországon* [Church and society in medieval Hungary], (Budapest: Akadémiai Kiadó, 1971); Marie-Madleine de Cevins, *Les paroisses Hongrois au Moyen Age*.

the development of the late medieval villages.²⁹⁰ But there is a lack of documentary source material, which leads to the fact that the exact numbers of nucleated villages and churches are not known and can only be estimated. It seems likely that the network of parishes reached its medieval completion by the end of the fourteenth century, and this pattern remained more or less stable for the next two hundred years in most parts of the country.²⁹¹

It is not clear how population movements, such as the immigration and settlement of the Cumans, affected the formation of parishes and parish boundaries in the study area. It is conceivable that there were some regional and maybe chronological differences compared to other regions of the country. However, the simultaneous appearance of “uniformized” large churchyard cemeteries in the Cuman settlement area, and the Gothic rebuilding or enlargement of their parish churches in the early fifteenth century, probably indicate the formation parishes at least by that time. In the absence of written sources that inform about the ecclesiastical organization of the Cuman areas, it cannot be convincingly confirmed, whether all late medieval village nuclei had parish rights around Kecskemét.

Given the devastations caused by the Ottoman rule, it is somewhat surprising that in comparison with the southern part of the Interfluvium Region there is abundant source material surviving about the Vác Diocese, with a lot more information available from the sixteenth-seventeenth centuries; making it is possible to outline the historical and economic relations within the Vác Bishopric.²⁹² In the context of churches, it has to be mentioned that in the Árpadian Period, there was a large number of village-types settlements, which did not have a church site. Additionally, one part of the earlier Cuman dwelling sites also lacked churches. In reaching an interpretation of this information, and whether it offers an explanation for the pre-disposition of such sites to subsequent desertion, it is the case that the evidence for such sites arises from field-walking rather than from excavation and this leaves open the possibility that certain relevant information is not visible to the field-walker.

²⁹⁰ Koszta, *Az egyház és intézményei*, 220.

²⁹¹ There is a list compiled by tax collectors of the Pope from the 1330s onwards, which aimed at collecting the papal tithe, the tenth part of ecclesiastical benefits. These rolls list only a few parishes in the Danube-Tisza Interfluvium area, which is surely incomplete. For instance they mention only 56 churches in the whole Pest County, while Edit Tari collected written and/or archaeological data on 347 medieval churches in the county. Tari, *Pest megye középkori templomai*, 206-209; Koszta, *Az egyház és intézményei*, 207; Engel, *The Realm of St Stephen*, 143.

²⁹² Szarka, *A váci egyházmegye történeti földrajza a török hódítás korában*; Gyula Szarka, *A váci egyházmegye és püspökei a török hódítás korában* [The Vác: Diocese and its Bishops in the Ottoman Occupation Period], (Vác: Vác Város Levéltára, 2008); Ferenc Szakály, "Templom és hitélet a 17. századi váci egyházmegyében" in: *R. Várkonyi Ágnes Emlékkönyv születésének 70. évfordulója ünnepére*, edited by Péter Tussor, (Budapest: ELTE Bölcsészettudományi Kara, 1998), 223-231; Lajos Varga, *A váci egyházmegye történeti földrajza* [The historical geography of the Vác Diocese], (Vác: Váci Egyházmegyei Hatóság, 1997); Molnár Antal, "Adatok a váci püspökség török kori történetéhez" [Data on the history of the Vác Bishopric in the Ottoman Occupation Period] *Egyháztörténeti Szemle* 2 (2001/2): 57-86.

Village churches were constructed at different scales, and to various plans, and were made from a range of building materials such as stone, brick or clay, depending on the local circumstances, such as the availability of raw materials and the financial capacity of the community. Both the written sources and the archaeological surveys suggest that by the mid-thirteenth century, there was a considerable number of smaller,²⁹³ typically single-naved, simple village churches built in the Romanesque style throughout the country a considerable part of which disappeared by the late thirteenth-early fourteenth century, many of which were destroyed during the Mongol Invasion in 1241-1242, or abandoned because of the desertion of the settlement they belonged to. In the fourteenth century, alongside with the nucleation process in the settlement structure, new, or enlarged²⁹⁴ churches appear, using Gothic forms (Figs 81-83).

The earliest churchyard cemeteries (called *cimiterium* in Latin) dates back to the eleventh century. From 1092, cemeteries were by law located around the parish churches.²⁹⁵ Archaeological evidence suggests that in fact those row cemeteries of commoners established irrespectively of churches in the tenth-eleventh centuries were not used after the turn of the twelfth century.²⁹⁶ The cemetery was an exempt asylum-area, thus it had to be physically separated from other parts of the village territory.²⁹⁷ This boundary marker might have been a ditch, a fence, or a wall. Officially it was forbidden to use the graveyard area for purposes other than burials, such as feasts; nevertheless, interestingly, there are numerous documentary and archaeological indications that not only chapels but also houses, pantries and cellars were built in late medieval graveyards.²⁹⁸ Additionally, it seems evident that the house of the parish priest was located near or next to the church. Possible examples of such houses have been identified at Szentkirályszabadja, Dörgicse and Arács in

²⁹³ For instance, around Cegléd, the average size of thirteenth-century village churches was around 9-11m x 6-8 m. see: Tari, *Pest megye középkori templomai*.

²⁹⁴ Around Cegléd the average size of late medieval churches varied around 12-15m x 5-9 m', Tari, *Pest megye középkori templomai*.

²⁹⁵ It was declared at the Synod of Szabolcs in 1092 that the deceased must be buried in the consecrated graveyards around churches. János M.Bak, György Bónis, James Ross Sweeney, eds., *The Laws of the Medieval Kingdom of Hungary. Decreta Regni Mediaevalis Hungariae 1000-1301*, (Bakersfield: Charles Schlacks Jr., 1989; 2nd, rev. ed.: Idyllwild: Schlacks, 1999), vol. 1.

²⁹⁶ *Hungarian Archaeology at the turn of the Millenium*, 342.

²⁹⁷ The cemetery and the church was "sacred place", in which fugitives, criminals, or those accused of crime were immune to arrest and from legal action. Anzelm Szabolcs Szuromi, "A templom körüli temetkezés a középkori egyházfegyelem tükrében (12-13. század). Burials in the churchyard as reflected in medieval church discipline], in: "... a halál árnyékának völgyében járok" *A középkori templom körüli temetők kutatása*, edited by Ágnes Ritoók and Erika Simonyi, *Opuscula Hungarica VI*, (Budapest: Magyar Nemzet Múzeum, 2005), 11-13; András Kubinyi, "Késő középkori temetkezések a forrásokban" [Late medieval burials in documentary sources], in: "... a halál árnyékának völgyében járok" *A középkori templom körüli temetők kutatása*, edited by Ágnes Ritoók and Erika Simonyi, *Opuscula Hungarica VI*, (Budapest: Magyar Nemzet Múzeum, 2005), 13-18.

²⁹⁸ Károly Belényesy, „Templom körüli erődítés Balatonszárszó határában” [Medieval fortification at the church of Balatonszárszó, a deserted village] in: *Népi építkezés a Kárpát-medencében a honfoglalástól a 18. századig*, edited by Miklós Cseri – Judit Tárnoki, (Szentendre – Szolnok: Szentendrei Szabadtéri Múzeum-Szolnoki Damjanich Múzeum, 2001), 421-435; Kubinyi, *Késő középkori temetkezések*, 16.

Veszprém County,²⁹⁹ but recent studies on medieval churches and churchyards emphasized the uncertainties with such interpretations.³⁰⁰

The new churchyards were consecrated by the bishop; the funeral service was the duty of the parish priest. The burial places were situated around the church wall, but there are often burials inside the churches as well, both in the sanctuary and the nave. According to Canon Law, the deceased had to be buried in the churchyard of his residential parish, but there are several documented cases when due to sudden death far from the homeland the dead person was buried where he died. In addition, and with the consent of the parish priest, a funeral could take place at other locations than the local churchyard, typically at monasteries. The burial area within the church building was usually the most prestigious location, and was traditionally reserved for noblemen or the clergy. However, recent opinions on late medieval funerary practices argue that even in the rural environment, the actual burying place was a question of wealth rather than legal status, as even wealthy peasants could buy burial places inside the churches.³⁰¹

The deceased were often wrapped in reed-mace or textile, or were buried in wooden coffins, and in many cases brick-lined grave pits were documented. Gravestones are known from rural environment from the Árpadian Period onwards,³⁰² and it is supposed that the tradition of richly ornamented wooden grave marks, whose earliest documented cases are from the eighteenth century, can be of late medieval origin.³⁰³ As in other parts of Europe, burial practices have attracted much attention in archaeological research, shedding light not only on the cultural aspects of the population but also on the anthropological profile of medieval society.³⁰⁴

4.9.5 MONASTERIES

Medieval monasteries appear in the study area in the context of villages, where they were mostly situated in villages. Monasteries are therefore key elements of the villagescape. In general,

²⁹⁹ Pál Rainer, "Középkori plébániaépület(?) Szentkirályszabadján" [Medieval priest's house(?) at Szentkirályszabadja] Veszprém Megyei Múzeumok Közleményei 26 (2010): 111-128.

³⁰⁰ Belényesi, *Templom körüli erődítés*.

³⁰¹ Kubinyi, *Késő középkori temetkezések*, 16.

³⁰² Ágnes Ritoók, "Templom körüli temetők Árpád-kori sírjelei Magyarországon" [Árpadian Age tombstones in parish cemeteries] *Communicationes Archaeologicae Hungariae* (1997): 205-213; Júlia Kovalovszki, "Csónakos temetkezések az Árpád-korban" [Boat-shaped burials in the Árpadian Period] In: Honfoglalás és régészet. Bp. 1994. 207-217; Pál Lövei, "Temetői sírjelek a középkori Magyarországon" [Gravemarks in medieval Hungary], in: "... a halál árnyékának völgyében járok" *A középkori templom körüli temetők kutatása*, edited by Ágnes Ritoók and Erika Simonyi, *Opuscula Hungarica VI*, (Budapest: Magyar Nemzet Múzeum, 2005), 77-84.

³⁰³ Iván Balassa, "A magyar temetők néprajzi kutatása" [The ethnographical survey of Hungarian graveyards], *Ethnographia* 86 (1973): 225-242.

³⁰⁴ See for instance: "... a halál árnyékának völgyében járok" *A középkori templom körüli temetők kutatása* ["...I walk through the valley of the shadow of death" The survey of medieval churchyards], edited by Ágnes Ritoók and Erika Simonyi, *Opuscula Hungarica VI*, (Budapest: Magyar Nemzet Múzeum, 2005); and a recent publication: *A hadak útján. Népvándorlásokor Fiatal Kutatóinak XX. Összejövetelének konferenciakötete Budapest–Szigethalom, 2010. október 28–30*. [On the routes of armies. Assembly of Young Scholars on the Migration Period XX, Budapest-Szigethalom, 28th-30th October 2010] edited by Zsolt Petkes, (Budapest: Magyar Nemzeti Múzeum, Nemzeti Örökségvédelmi Központ, 2012).

monastic communities appeared from the 970s in the Hungarian territories, in conjunction with the conversion of the country and the formation of the medieval Hungarian Kingdom. Two key aspects distinguish the monastic presence in the Danube-Tisza Interfluvium Region; on the one hand, there are fewer foundations here than is the pattern elsewhere and most were started and deserted in the Árpadian Age, while it is also apparent that there are very few late medieval mendicant establishments, canons regulars, or hermits in the study area (Fig 84).³⁰⁵

There is also a patterning to the nature of monastic foundation, where within the western, Transdanubian territories there is clear dominance of royal patronage, while east of the Danube the majority of communities were established by private persons or families. This reflects that strength of royal influence in the western part of the country, and it shows the ambitions and control of local noble families in the central and eastern regions.³⁰⁶ Additionally, the monasteries in the Danube-Tisza Interfluvium were established along the strategic trading and military routes presented by the rivers Danube and Tisza. The early kindred-patroned monasteries were generally small Benedictine communities, such as Pétermonostora,³⁰⁷ Ellésmonostora,³⁰⁸ Szer,³⁰⁹ and Bátmonostor (Figs 85-86).³¹⁰

The Mongol Invasion of 1241-42 curtailed the development of the monasteries, but changes in other social and economic processes also played a part. In particular reorganization of the distribution of salt, and the appearance of royal salt chambers along trading route in the Maros valley weakened the position of the local noblemen, and consequently their ability to support the privately founded monasteries, with the result that only the principal monasteries survived, and most of the earlier foundations disappeared both from the written documents and have left few upstanding traces of their former existence.³¹¹

³⁰⁵ Koszta, *Dél-Magyarország egyházi topográfiája*, Erik Fügedi "Koldulórendek és városfejlődés Magyarországon" [Mendicant Orders and urban development in medieval Hungary], *Századok* 106 (1972), 69-95.; Beatrix F. Romhányi, *Kolostorok és társaskáptalanok a középkori Magyarországon* [Monasteries and chater houses in medieval Hungary], (Budapest: Pytheas, 2000); Levente Hervay: "A bencések és apátságai története a középkori Magyarországon. Benedictine life in medieval Hungary" *Paradisum Plantavit. Bencés monostorok Magyarországon- Paradisum Plantavit. Benedictine Monasteries in Hungary*. edited by Imre Takács, (Pannonhalma: Pannonhalmi Bencés Főapátság, 2011), 461-548, 719-743.

³⁰⁶ About kindred monasteries see: Erik Fügedi, "Sepelierunt corpus eius in proprio monasterio. A nemzetségi monostor" [Sepelierunt corpus eius in proprio monasterio: the kindred monastery], *Századok* (1991): 35-67; and a recent summary: Levente Péter Szöcs, *The Abbey Church of Ákos. The Architectural and Functional Analysis of a kindred Monastery Church*, MA Thesis in Medieval Studies, CEU-Budapest, 2003, manuscript; Péter Levente Szöcs, "The Abbey Church of Ákos. The Architectural and Functional Analysis of a 'Kindred Monastery' Church". *Annual of Medieval Studies at CEU*. 9(2003): 155-180.

³⁰⁷ Sárosi, *Régészeti kutatások Bugac-Felsőmonostoron: egy erősen rombolt lelőhely kutatásának módszertani tanulságai*, Sárosi, *Landscape and the possibilities of archaeological topography*.

³⁰⁸ Éva Pávai, "Ellésmonostor kutatása" [The survey of Ellésmonostor], in: *A középkori dél-Alföld és Szer*, edied by Tibor Kollár, (Szeged: Csongrád Megyei Levéltár, 2000), 219-238.

³⁰⁹ Katalin Vályi, "Szer monostora és települése az elmúlt 27 év kutatásai alapján" [The monastery and settlement at Szer after 27 years of research], in: *A középkor és a kora újkor régészete Magyarországon*, vol 1, 387-400

³¹⁰ Biczó, *Ásatások a középkori Bátmonostor területén*.

³¹¹ Koszta, *Dél-Magyarország egyházi topográfiája*.

The study of individual monasteries has focused on what can be recovered of the building fabric and basic footprint of the foundation. There has been little attention given to the impact that monasteries were not only consciously established in the heartlands of the estates of the founder families or kindreds, but, more closely, they were built in all cases in villages, the settlement of which, from chronological point of view, preceded the date of the monasteries' foundation.³¹² Yet it is a subject that archaeology is most capable of examining since much of the information is based on field survey data. As in most cases the surveys focused on the monastery itself, beside the fragmentary data of written sources, only deficient archaeological information is available about the settlement they were established at.³¹³ It is notable that the monasteries, although located within villages, also lay apart from the spiritual needs of the villagers, who attended mass in a separate parish church and were often buried in the village cemetery (Fig 85-86).³¹⁴

We do not know, especially in the context of the earlier period, whether the founders had permanent or temporary dwellings or seats near the monasteries, but in those few cases when these institutions survived the thirteenth century, such as in case of Szer or Bátmonostor, it seems that the monastic sites were reorganized, and became residential sites as well as economic centres of the landowner (patron) families until the mid-sixteenth century. In these cases the presence of the noble families obviously effected and prompted the expansion of the settlements, which is apparent from the fact that both Szer and Bátmonostor are referred to as oppida in the fifteenth century. Nonetheless, as soon as the residential sites were given up in the Ottoman Period, both the settlements and the monasteries were quickly deserted. Neither the settlement nor the monasteries alone were sustainable, and this feature emphasises the primary organizing role of the landowning families.³¹⁵

There is evidence in several cases where monastic complexes disappeared in the thirteenth-fourteenth century for the continued existence of settlement until they were finally and fully deserted in the Ottoman period of the late sixteenth century. It is seen, for instance, at Ellésmonostor, Csoltmonostor or at Bugac-Felsőmonostor (Pétermonostora) where sources indicate that the Monostori family is mentioned in 1347,³¹⁶ but up to now there is no closer

³¹² For instance at Pétermonostora, the monastic complex was built over an 11-12th century cemetery.

³¹³ In most cases it is mentioned that "around the monastic complex" the archaeological material of large villages were observed and collected. (e.g. Csoltmonostor, Ellésmonostor) Pávai, *Ellésmonostor kutatása*, Irén Juhász, A Csolt nemzetség monostora [The monastery of the Csolt kindred], in: *A középkori dél-Alföld és Szer*, edited by Tibor Kollár, (Szeged: Csongrád Megyei Levéltár, 2000), 281-304.

³¹⁴ Szócs, *The Abbey Church of Ákos*.

³¹⁵ The Szeri Pósa family hosted King Charles I in 1318 at Szer; further on, in the fifteenth century the family had noble officioners at Szer. In 1389, the customs are mentioned, and in 1407 the annual fair is referred to. Ferenc Horváth, "Szer plébániatemploma és a település középkori története" [The medieval history of Szer and its parish church] *Móra Ferenc Múzeum Évkönyve* (1974-1975): 343-374. At Bátmonostor the Becsei and later the Várdai family had a residence from the early fifteenth century. Biczó, *Ásatások a középkori Bátmonostor helyén*.

³¹⁶ Iván Nagy, Imre Nagy, Dezső Véghelyi et alii, eds., *A zichi és vásonkeoi gróf Zichy Család idősb ágának okmánytára* [Archives of the Zichy family], Vol. 2, Pest, 1832, 359-360.

(historical/archaeological) data about their permanent presence at the settlements. Thus it seems that the presence or the disappearance of the monastery as well as the noble residence by themselves is not the ultimate indicators of a site's desertion or survival. In this respect, in the next chapter I will address questions about the relations between the monastery, the landowner and the settlement, as these three factors, and the various connections, maybe hierarchies among them reveal those legal, economic or other features which influenced the individual histories of particular settlements.

4.9.6 NOBLE RESIDENCES IN VILLAGES

Beside churches, the most obvious manifestation of authority the villagescape was the presence of noble residences, and their research has long been of interest to medievalists in Hungary.³¹⁷

From a topographical perspective it must be observed that despite the widespread interest in the nobility, there are no physical remains of their presence in the central part of the country in the late medieval period.³¹⁸ There are no fortifications or residences that can be associated with them within the village areas. As András Kubinyi has pointed out, the majority of permanent baronial residences were located c. 200-300km from the royal seat in the fifteenth century.³¹⁹

In addition to this phenomenon, the structure of estates in the late medieval period represents a special pattern in the central part of the Danube-Tisza Interfluvial Region. In this area, large bodies of royal estates were located from the Árpadian Period till the first half of the fifteenth century, which most probably prevented here the formation of extended private lordships.³²⁰ From the late thirteenth-fourteenth century, parallel to the desertion and nucleation process in the settlement system, both the royal and private estate bodies became spatially reorganized. This included the integration of Cuman tribes on deserted royal properties, the elite of whom were donated with smaller possessions, and the development of the market towns, (such as Kecskemét and Cegléd).

A special network of smaller estates developed in the central part of the Danube-Tisza Interfluvial Region, mainly consisting of only one village, or some village-properties, which were owned by the local county nobility, such as the Dabasi, Gyóni, Péteri, Alberti, and Besenyői families in the northern part of Pest County. The documents also mention numerous Cuman landowners, such as

³¹⁷ The most important recent publications are: Tibor Koppány, *A castellumtól a kastélyig. Fejezetek a magyarországi kastélyépítés történetéből* [From castellum to kastély: a history of Hungarian mansions], (Budapest: Históriaantik Kiadó, 2006); Virágos, *The Social Archaeology of Residential Sites; Kastélyok évszázadai, évszázadok kastélyai. Tanulmányok a 80 éves Koppány Tibor tiszteletére* [The centuries of mansions, the centuries' mansions: Studies in honor of Tibor Koppány on his 80th birthday], edited by Selyezette Somorjai and István Feld, (Budapest: Históriaantik Könyvesház Kiadó- Castrum Bene Egyesület, 2008); István Feld "Középkori várak és rezidenciák régészeti kutatása- Archaeological Research into Medieval Castles and Residences", in *A középkor és a kora újkor régészete Magyarországon*, edited by Elek Benő and Gyöngyi Kovács, MTA Régészeti Intézete, 2010, vol 2, 495-520.

³¹⁸ Except for Kalocsa, where the archbishop of Kalocsa had his permanent seat, which can be interpreted as a special kind of residence. Nevertheless, the presence of the highest ecclesiastical dignity did not encourage the settlement's development, Kalocsa remained a basically small, rural and unimportant *oppidum* throughout the Middle Ages. See: Gyula Kristó, *Fejezetek az Alföld középkori történetéből* [Chapters from the medieval history of the Great Plain Region], *Dél-Alföldi Évszázadok* 20, Szeged: Csongrád Megyei Levéltár, 2003, 83-94; Kubinyi, *Városfejlődés és vásárhálózat*, 72.

³¹⁹ András Kubinyi, "Residenz- und Herrschaftsbildung in Ungarn in zweinten Hälfte des 15. Jahrhunderts und am Beginn des 16. Jahrhunderts," in: *Fürstlichen Residenzen in Spätmittelalterlichen Europa*, edited by Hans Patze and Werner Paravicini, Sigmaringen, 1991.

³²⁰ Attila Zsoldos argues that even if there were smaller estate-complexes of the mightiest families and kindreds, such as the Ákos, Rátót, or the Bór-Kalán kindred, in general, the main body and centre of these lordships were located outside the Danube-Tisza Interfluvial Region. See: Attila Zsoldos, "Pest megye az Árpád korban" [Pest county in the Árpadian Period], in: *Pest Megye Monográfiája I/2: a honfoglalástól 1686-ig*, edited by Attila Zsoldos, Budapest: Pest Megye Monográfia Közalapítvány, 2001, 32-74; Tringli, *Pest megye a középkorban*, 90.

John Karla, a Cuman captain, the owner of Ágasegyháza in 1353³²¹, or Peter, son of Belcheri, who, together with his sons and brothers acquired Szentkirály and Mindszent in 1354.³²² Only handful of wealthier noble families is known from the Danube –Tisza Interfluve Region who resided in the area. The most famous of these noblemen are the Becsei and Várdai families, who had their castellum at Bátmonostor,³²³ or the Haraszthy family, whose curia was at Pótharasz.³²⁴ The curia of Paul Kakas of Gyál,³²⁵ and the residence of the Nyársapáti family at Nyársapát³²⁶ are mentioned around the turn of the fifteenth century.

During the Ottoman Occupation Period, noble landowners tend to move from the subjugated territories to more peaceful areas, such as Upper Hungary, and this process has itself further contributed to the absence of ‘noble architecture’ in the Danube Tisza Interfluve Region from the sixteenth-seventeenth centuries.

4.10 DISCUSSION ON THE DEVELOPMENT OF VILLAGE SYSTEM IN THE CENTRAL PART OF THE DANUBE-TISZA INTERFLUVE REGION

It is possible to make several observations on the late medieval settlement pattern in the area around Kecskemét based on the research completed to date. The dense settlement network of the Árpadian Period (tenth to thirteenth centuries) was substantially transformed from the second half of the thirteenth century, influenced in part by the devastation of the Monogol Invasion in 1241-1242, but also affected by changes in the economic and social structures. The immigration and the settlement of the Cumans in the thirteenth century also determined the directions of the changes. The most apparent sign of transformation in the second half of the thirteenth and in the fourteenth century was the presence of numerous deserted village sites, and the appearance of Cuman settlements, which, in that period can be described as series of temporary sites. From the early fifteenth century, both Cuman and Hungarian settlements emerge as large nucleated villages. It is of

³²¹ Hornyik, *Kecskemét város története*, vol. 1, 197.

³²² Gyárfás, *A jász-kunok története*, vol. 2, 489-490.

³²³ In 1401-ben King Sigismund permitted that Ladislaus Töttös of Bátmonostor build a wooden or stone *castellum* at his *possessio Bathmonostor*. In 1464, King Mathias allowed that the *castellum* at Bátmonostor sustain, as the building was constructed by permission of King Sigismund, thus the *castellum* should not be destroyed but might be further fortified with stone walls, towers and a ditch. MOL DL 78870.

³²⁴ The Haraszty family possessed only *possessio Potharaztya* in the first decades of the fifteenth century, but John Haraszti, by the 1430s owned beside this property three villages and three more deserted village lands. Tringli, *Pest megye*, 91.

In 1504, King Wladislas II issued a letter in which the complaint of Franciscus of Haraszth is described. According to the document, some 11 years ago, Bertalan Patochy of Kecskemét, with his familiares attacked the *curia* of the orator at *possessio Pootharazthya* in Pest county, and carried away building timbers from there. (MOL DL 59949)

³²⁵ The curia is mentioned in 1454, when Paul Kakas was already dead. Bártfai Szabó, *Pest megye történetének okleveles emlékei*, 207.

³²⁶ Bálint, *A középkori Nyársapát lakóházai*; Benkő, *A nyársapáti udvarház és házak a középkorban*; Benkő, *A középkori Nyársapát*.

primary importance that from about that period it is difficult to detect any unique ‘Cuman’ or ‘Hungarian’ features in the morphology, architecture, and material culture of villages. This situation has determined the direction of studies that consider the assimilation and integration of Cuman settlements into the Hungarian settlement network.

Both archaeological and historical studies suggest that nucleated villages with regular row elements were the most characteristic morphological features in the late medieval rural landscape in the study area, and irregular, agglomerated features seldom appear. The settlements became structured along streets, and the peasant holdings were divided into standard tofts, comprising the croft, where the above-ground, multi-roomed peasant house was located within a small farmyard, and the larger agricultural lands belonging to the same unit. The remains of the churchyard with its church building and cemetery are also key components of village sites. Market places were present in only the larger villages, many of which appear as market towns in the late fifteenth and sixteenth century. The seats of prelates and lay magnates are essentially missing, and there are only two examples of monasteries in the late medieval period from the wider region of the study area, namely Szer and Bátmonostor, where, the presence of noble residences and the patronage of the local landowner ensured the existence of the monastic communities.

The study of the plots within villages demonstrates evidence of abandonment in the second half of the fifteenth century, but this must be tempered by the observation that such plots remained in cultivation, suggesting a depopulation and reorientation of the parts of the countryside but not the complete desertion of settlement sites.

The settlement pattern was not fixed or stable in the fifteenth-sixteenth century period. There were three main periods and types of settlement desertion at that time: several of the Cuman sites were deserted before 1500, and a second wave of desertion occurred around the time of the Ottoman conquest of Hungary, presumably between the battle of Mohács in 1526 and the first census roll of the subdued territories in 1546, when some villages were destroyed and abandoned (Ágasegyháza, Monostor). It is remarkable that the number of villages remained relatively stable during the period between 1546 and 1590. The Ottoman defter rolls suggest that all those settlements registered in the first draft in 1546, were recorded as inhabited sites in 1590. Yet a third and arguably the most intensive phase of desertion occurred between 1591 and 1606, when documentary sources report extensive destruction and desertion of the Interfluve area. Only the three market towns Kecskemét, Nagykőrös and Cegléd escaped desertion. No other permanently inhabited sites were registered in the area until the eighteenth-century repopulation of the Interfluve area. The sixteenth century also shows evidence for the emergence of isolated farmsteads across the rural landscape.

At last, both the pattern and inner structure of villages assured dynamic context in the fourteenth to seventeenth century period that was able to adopt the frameworks of living and production in the changing political, economic and circumstances. Still, it is only partially possible to overview the late medieval-early modern history of villages, even if most of the late medieval rural settlements were mapped around Kecskemét. The biggest problem is the insufficient information of the individual histories of settlements, for instance in terms of desertion, which is a crucial feature when describing overall pattern and changes in the landscape. In this respect the the present discussion highlighted and appointed some directions for future in-depth investigations.

The following two in-depth studies on the medieval settlements at Bugac-Monostor and Szentkirály using archaeology as the principal tool will help to reassess the merit of the general understanding and may also help to qualify and/or change our views on particular details of settlement history of the region.

5. LATE MEDIEVAL VILLAGES IN THE DANUBE-TISZA INTERFLUVE REGION: TWO CASE STUDIES

In the previous section of my dissertation, I reviewed the general development of late medieval villages, but my thesis would be incomplete without case studies demonstrating general and unique features of settlement history. I combined the “traditional” methods of archaeology, history, and included environmental data sets; and this interdisciplinary approach contributed to the quality and depth of knowledge on medieval rural landscapes.

I chose Monostor and Szentkirály for in-depth investigation because they display representative development-patterns of the area: both are known to have been existing settlements from the eleventh century. Szentkirály was populated by Cumans in the second half of the thirteenth century on the site of an earlier village, thus its medieval history represents the development of a typical “Cuman village”. Monostor, owned by Hungarian landowners throughout the medieval period, with a short-lived Benedictine monastery, may stand for another model. Both areas are known to be deserted lands from the late sixteenth century, and became rented, later fully owned properties of Kecskemét. Their pre-modern landscapes and the pattern of settlements cannot be interpreted and understood without the modern histories of the territories, thus I will include data on some more important episodes from their recent past. The last reason why I selected these settlements as case studies for the present thesis is that I was lucky to conduct intensive archaeological field work and excavation projects at both sites in the previous years, which led to important results concerning the settlement and landscape history of the area. Thus, the main discussion and conclusions of this chapter will be based on outcomes of these surveys.

5.1 MONOSTOR: A SETTLEMENT WITHOUT WRITTEN RECORD³²⁷

Monostor is located 22 km south of Kecskemét, outskirts of the present-day village of Bugac. The intensively cultivated and forested landscape of the today area hardly reflects any environmental features of the nineteenth century, when Bugac became world-wide famous for its deserted, treeless “puszta” landscape, connected with a particular economic management based on large scale animal husbandry and the isolated farmsteads (Fig 87-88).

The territory appears as a deserted “puszta” land in written sources until the turn of the eighteenth century, when the property was united with the neighbouring deserted land Bugac. It was first

³²⁷ During my MA studies I discussed the topographical development and history of *possessio Monostor*, and in fact, this was my test area where I could exemplify which methods and to what extent can be used to outline the settlement history of this territory. The main emphasis during that research was put on methodological questions. The scale and limits of that survey did not allow discussing finer details of settlement history in the framework of the MA Thesis.

rented, later fully owned property of Kecskemét, and became (re)populated. The few medieval written records that survived about Monostor's medieval history, and the place name itself (Monostor means 'monastery') suggest that no settlement, but a privately founded monastery existed there in the medieval period.³²⁸ These data contradict the archaeological topography of the area, which proved the continuity of habitation from the eleventh until the late sixteenth century. Another interesting feature in the medieval and early modern history of Monostor is that its territory is situated in the middle of the area inhabited by the Cumans from the late thirteenth century. Documentary sources suggest that Monostor remained an "island" in the later Cumania Minor, it was never possessed by Cuman landowners, and there is no data about Cuman inhabitants.

5.1.1 DOCUMENTARY SOURCES

The first record that can be connected to this land dates from 1219, when a certain Stephan is mentioned together with members of the Beche kindred,³²⁹ as being the abbot of St Peter monastery in Shung county.³³⁰ Not much later, in 1258, members of the same Beche kindred, made an agreement about the patronage of monasterium Peturmonustra.³³¹ The territory appears in written documents again almost a century later, in 1347, when Töttös of Becse protested against that fact that Martin, Michael and Nicholas of Chegze proposed to alienate parts of the estate called Peturmonustra and Palmonustra with the appurtenances attached to them in Fejér county.³³²

In 1349, Lucas of Peturmonustra and his sons committed themselves to hand over the privileges that had been issued by King Béla IV concerning the estates of Peturmonustora and Palmonustora to the same Töttös of Beche, in Fejér county.³³³ In 1359, the chapter of Buda confirmed that on King Louis' command, Nicholas, son of Paul, and Martin, son of Elias were introduced into the possessions of Peturmonustra and Palmonustra, in county Pest.³³⁴ In 1411, the chapter of Kalocsa verified that on King Sigismund's command, George and Egedius, sons of John

³²⁸ About this problem: Sárosi, *The possibilities of archaeological topography*; Sárosi, *Bugac-Felsőmonosor, egy erősen rombolt lelőhely*.

³²⁹ The *Beche* or *Beche-Gregor* (in Hungarian: Becse-Gergely) kindred is among the oldest and most renowned noble kindreds of medieval Hungary. The earliest data about its members appears in the twelfth century, and from the thirteenth century we hear about various branches and members of the kindred, who are among the wealthiest and most influential families of Hungary. Their most important possessions were located in Transylvania, and the members of the kindred had additional considerable possessions in the eastern and central part of the Great Plain, and also in Transdanubia, in Tolna county. János Karácsonyi, *Magyar nemzetségek a XIV. század közepéig* [The history of Hungarian kindreds until the mid-fourteenth century], (Budapest: Magyar Tudományos Akadémia, 1900), 234-248.

³³⁰ 1219: Ioannis Karácsonyi and Samuelis Borovszky, eds, *Regestrum Varadiense examinum ferri candentis ordine chronologico digestum descripta effigie editionis a. 1550 illustratum sumptibusque capituli Varadiensis lat. Rit.*, (Budapest, 1903), 228.

³³¹ 1258: Georgii Fejér, *Codex diplomaticus Hungariae Ecclesiasticus ac Civilis*, Vol.4/2, Buda, 1832, 461.

³³² 1347: Iván Nagy, Imre Nagy, Dezső Véghelyi et alii, eds., *A zichi és vászonkeoi gróf Zichy Család idősb ágának okmánytára* [Archives of the Zichy family], Vol. 2, Pest, 1832, 227-228.

³³³ 1349: Iván Nagy, Imre Nagy, Dezső Véghelyi et alii, eds., *A zichi és vászonkeoi gróf Zichy Család idősb ágának okmánytára* [Archives of the Zichy family], Vol. 2, Pest, 1832, 359-360.

³³⁴ 1359: MOL DL 87200. Iván Nagy, Imre *A zichi és vászonkeoi gróf Zichy Család idősb ágának okmánytára* [Archives of the Zichy family], vol 2, (Pest, 1832), 228.

of Gewalja, together with their relative, Stephan, son of Ladislaus, came into possession of Petermonostra, Palmonostra and Morochgatha estates, which are neighbouring territories.³³⁵

In 1488, possessio Pétermonostora is mentioned in a lawsuit between the members of the Zeleméri family.³³⁶ The last documentary mention of possessio Monostor before the battle of Mohács was in 1517.³³⁷ In 1547, possessio Monostor was mentioned,³³⁸ and in one case, in 1631, Pétermonostra, Pálmonostra and Móriczgáttya are quoted.³³⁹ Under Ottoman occupation, the territory was attached to the Sanjak of Buda, in the subsidiary nahije of Kecskemét. Turkish tax lists mention Monostor puszta as a deserted land, used by the inhabitants of Kecskemét in 1546.³⁴⁰

In the eighteenth century, the Neoacquistica Commissio³⁴¹ allocated the estate to Ignác Baranyai, who leased it out to the municipality of Kecskemét. During the eighteenth century, one part of the territory was distributed among Kecskemét citizens; the fields and gardens at Monostor are mentioned in several cases by the town protocols and the citizens' last wills as well. Later, in 1794, the town of Kecskemét purchased the estate from the Majtényi family. From that period the territory of Monostor estate and the neighbouring Bugac estate were united, forming Bugac-Monostor. At Monostor, five and a half acres of land were sold to 63 landholders,³⁴² while there is a list of thirteen landowners possessing winter stalls (telelők) in the Bugac area from 1810.³⁴³ Various registers and censuses from the nineteenth century reveal that in that period there were considerably more residents in the Monostor-part of the territory than in Bugac, which suggests that the Monostor area was managed mostly in the framework of farmsteads, while at Bugac presumably animal husbandry was more typical.

In 1910, the town council of Kecskemét accepted the proposal of Mayor Elek Kada, and decided to found a village on the estate. This settlement was first named Monostorfalva, then in 1937, at the request of the local habitants it was renamed Bugacmonostor, and finally, in 1950, was called Bugac (Fig 88). Today there are two more newly-founded small settlements inside the boundaries of Bugac village, namely Alsómonostor and Bugacpusztaháza, neither having any historical predecessor.

³³⁵ 1411: Bártfai Szabó, *Pest megye*, 74-75.

³³⁶ 1488: János Hornyik, *Pusztaszer, a honalapító magyar nemzet első törvényhozási közgyűlése színhelyének története* [The history of Pusztaszer, the site of first legislation of Hungary], Kecskemét: Szilády Károly Nyomdája, 1865. 116.

³³⁷ 1517: Hornyik, *Pusztaszer*, 118- 119.

³³⁸ 1547: Hornyik, *Pusztaszer*, 124- 125.

³³⁹ 1631: Hornyik, *Pusztaszer*, 143- 144.

³⁴⁰ Káldy Nagy, *A budai szandzsák 1546- 1590*, 440.

³⁴¹ This committee was founded in 1689, after the Ottoman forces were expelled from the territory of Hungary by Emperor Leopold I (King of Hungary between 1655-1705) and aimed at the controlling the ownership rights of landowners in the reoccupied parts of Hungary. The owners could only reclaim full rights of their lands if they could attest their possessory status with documentary evidence and they paid weapon levy after their properties.

³⁴² Mária Péterné Fehér, "Kecskemét vagyoni helyzetének felmérése 1855-ben" [The property roll of Kecskemét in 1855] *Bács-Kiskun Megye Múltjából* 16 (2000): 171-214; Juhász, *A Duna-Tisza közti migráció és hatása a népi műveltségre*, 252.

³⁴³ Juhász, *A Duna-Tisza közti migráció*, 252-253.

5.1.2 MAPS

The first representation of Monostor can be found, remarkably, already on the earliest map of the Hungarian Kingdom by Lazarus secretarius, dating from 1528.³⁴⁴ On this map, which depicts the most important inhabited (!) sites (mostly chartered towns and market towns) of the Kingdom at that time, it is named “Monstor”, and represented by a symbol of a church, encircled by a wall (Fig 89).

A next series of depictions is available from the post-Ottoman period; there are two relatively early representations of Predium Monostor on eighteenth-century county maps: the earlier was drawn by the famous cartographer Antonius Balla in 1740,³⁴⁵ and there is an additional, more detailed county map from 1793, both depict Monostor as a deserted land.³⁴⁶ Likewise, Monostor is shown as a deserted predium on Sámuel Mikoviny’s maps from 1732 and 1737 (Fig 90, Fig 91, Fig 92).³⁴⁷ Moreover, there are further maps from the late eighteenth century; an estate map from 1783 (Fig 93),³⁴⁸ the representation of the First Ordnance Survey and the Second Ordnance Survey (Fig 94, Fig 96),³⁴⁹ and an additional representation drawn about Bugac in 1800 (Fig 95).³⁵⁰ Several further depictions are available from the nineteenth century period: two maps from 1857: an additional estate map,³⁵¹ the hydrological map of the area.³⁵² Further on, the Third Ordnance Survey³⁵³ are also accessible, together with other representations from 1885³⁵⁴ and 1919 (Fig 97-100).³⁵⁵

³⁴⁴ *Tabula Hungariae ab quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalii secretarium...* Budapest, Országos Széchenyi Könyvtár [Hungarian National Library], Apponyi Collection M 136

³⁴⁵ *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, author unknown, year? Collection? DVD-ROM (Budapest, Arcanum e-térképtár, 2007)

³⁴⁶ *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, Országos Széchenyi Könyvtár [Hungarian National Library], S12 Div 10 No 76:1-2

³⁴⁷ *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, by Samuel Mikoviny, 1732, and *Mappa Comitatus Pesthiensis* by Samuel Mikoviny, 1737.

Both maps are catalogued in the HM Hadtörténeti Intézet és Múzeum [Institute and Museum for Military History], Budapest. The online resource for the maps can be found at:

<http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jasz4.htm>

<http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jaszunksag.html>

³⁴⁸ *Mappa Predii Monostor*, 1783, author unknown, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1. Bugac 20.

³⁴⁹ *Az első katonai felmérés* [The First Ordnance Survey], DVD-ROM (Budapest, Arcanum e-térképtár, 2004)

³⁵⁰ n.n. [without label], c. 1800, author unknown, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, shelfmark

³⁵¹ n.n. [without label], 1857, author unknown, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1. Bugac 21.

³⁵² *A Pusztá-Monostori vízfolyások rajza*, author unknown, 1857. Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1. Bugac 22.

³⁵³ *A Monarchia III. katonai felmérése* [The 3rd Military Mapping Survey of Austria-Hungary], (<<http://lazarus.elte.hu/hun/digkonyv/topo/3felmeres.htm>>), accessed on 14 September, 2008.

³⁵⁴ *Kecskemét szabad királyi város területének átnézeti térképe*, by Gusztáv Rihocsek, 1885, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1 483.

³⁵⁵ *Kecskemét t.h. város külső területének térképe*, by Tibor Kerekes, 1919, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét.

5.1.3 ARCHAEOLOGY

Regarding archaeological research, the first reference to this area originates from the 1880s, when scholars from the Hungarian National Museum excavated the church ruin in the southern part of Monostor. Unfortunately, no information has survived about this survey except for a fragment of a Limoges-type pectoral cross.

In the 1930s, Kálmán Szabó and László Papp carried out small-scale archaeological excavations at Monostor both in the southern Alsómonostor, and the northern Felsőmonostor part (Fig 101-103).³⁵⁶ Little is known about the investigations, since both the documentation and the material of their excavations, were destroyed in World War II. Still, some aspects of the research can be outlined from local newspapers and publications. The basic reason for starting the project was that in 1926 a new church was planned for the newly founded village of Monostorfalva (today Bugac), for which it was proposed to use the stone material from two ruined churches.³⁵⁷ Unfortunately, Szabó only gave a short overview on his research in his book.³⁵⁸ He presented the layout of a small church excavated at Felsőmonostor.³⁵⁹ It was a simple building with one nave, a semi-circular apse, and a small vestry attached to the northern church wall. The late medieval moulded brick pieces found on the site and the brief comment on a grave of a 13-14 years old girl, who had a belt made from metal wire³⁶⁰ suggest that the church was in use in the fifteenth century. Further on, in 1938, the traces of conquering Hungarians were discovered in the southern part of Monostor estate, in Alsómonostor, where Kálmán Szabó identified the grave of a high-born woman.³⁶¹

Among modern research the systematic field walking project conducted by the author of the present dissertation in 2000-2002 can be mentioned, which provided data to draft the archaeological topography of Monostor (Fig 104).³⁶² Aerial photos were taken about the territory in 2002.³⁶³

Recently, two archaeological trench excavations had been performed, one in 2002, which tackled the identification of the parish church and cemetery of the Felsőmonostor village site.³⁶⁴ In 2009, connected to a large-scale gas-pipeline project, there were sondage excavations on the

³⁵⁶ Szabó, *Az alföldi magyar nép művelődéstörténeti emlékei*. Papp, *Ásatások a XVI. században elpusztult Kecskemét környéki falvakban*.

³⁵⁷ Two short comments were written about the project in the daily newspaper *Kecskeméti Lapok* published on 23 May 1926, and 20 June 1926.

³⁵⁸ Szabó, *Az alföldi magyar nép*, 21-22, 132.

³⁵⁹ Szabó, *Az alföldi magyar nép*, 131.

³⁶⁰ Szabó, *Az alföldi magyar nép*, 61.

³⁶¹ Unfortunately the grave was partly destroyed by agricultural work, therefore only parts were found by Szabó. Altogether 91 decorated silver harness pieces and cloth ornaments were collected. See: Kálmán Szabó, *Ásatási segédeszközök* [Essential Tools in Archaeological Excavations] *Archaeologiai Értesítő* (1896): 296-297.

³⁶² As part of my MA thesis. The results of the thesis were partly published: Sárosi, *The possibilities of archaeological topography*.

³⁶³ The aerial photos were taken by Zsuzsa Miklós (Archaeological Institute of the HAS), here I would like to thank her help.

³⁶⁴ Sárosi, *Bugac-Felsőmonosor, egy erősen rombolt lelőhely*.

territory east of the monastic complex at Felsőmonostor, which resulted in settlement finds from the Avar Period (sixth to ninth century) and the Árpadian Period.³⁶⁵

In 2010-2011, a new planned research project by the József Katona Museum of Kecskemét has begun at Felsőmonostor, aiming at identifying the site of the medieval monastery. In 2011, also a targeted geophysical survey was launched at the Felsőmonostor site, aiming at the documentation of the parish church and the monastery (Fig 103).³⁶⁶

5.1.4 SETTLEMENT HISTORY/MORPHOLOGY

If the data from documentary sources is correlated to the results of the archaeological research, it is obvious, that the two types of information do not correspond: archaeological surveys detected continuous and dense settlement from the early Árpadian Period to the seventeenth century, but settlements are completely missing from the documentary evidence. However, the site of the monastery, mentioned by documents and indicated by the toponym, did not appear as an apparent feature in the landscape; it could only be identified with the help of analogies, targeted surveys and excavations.

Concerning the Árpadian Period, the series of archaeological surveys proved that the Monostor area had been continuously populated. According to the results, basically, there were two main settlement cores. Beside these nucleated settlement cores, dispersed settlement types were also located; partly as sequences of small concentrations of surface finds from the Árpadian Period, which is a typical feature for the dispersed farmsteads or hamlets of that time.³⁶⁷ Besides, the field-walking surveys revealed some smaller concentrations of late medieval and early modern pottery, which were not interpreted as 'village sites', but rather as the possible traces of the earliest dwelling sites or isolated farmsteads of this area. The traces of isolated small buildings were also spotted on aerial photos.³⁶⁸

Among the major settlement cores, one village was discovered in the southern, Alsómonostor part by field walking and on aerial photos as an extended, nucleated site, which, existed possibly between the twelfth and the late thirteenth-early fourteenth century according to the surface finds. This settlement had a church, which appeared as a 0,6-0.8m high hill of stone- and brick fragments with debris of mortar. Neither field surveys nor aerial photos showed features which could have been interpreted as monastery at this site.

³⁶⁵ The excavations were carried out by the Kulturális Örökségvédelmi Szakszolgálat. I accessed data about this project from the official database of the Kulturális Örökségvédelmi Hivatal on 19 October 2011.

³⁶⁶ The new project was carried out as part of the IPA Hungary-Serbia Cross-border Co-operation Programme, in the cooperation of the József Katona Museum of Kecskemét and the Museum of Vojvodina. The leader of the excavation is Szabolcs Rosta. I participated in the project as consultant.

³⁶⁷ Laszlovszky, *Einzelhofsiedlungen*

³⁶⁸ However, unfortunately, these features cannot be dated as most of them were detected on grasslands, while the pottery was collected on plough lands, which showed no features on the aerial photos.

Although the Árpadian Age is not in the focus of the present study, here I would like to briefly describe some typical features from that period, which can be best presented on the aerial photos of the Alsómonostor settlement (Fig 105-106). The site was situated near, or rather around a smaller sodic lake. The most important features of the settlement are the roundish-square pens and the ditches, which appear without any recognizable street structure around the parish church of the village. Apparently, the ditches are round and rectangular enclosures, which most possibly define furlongs and animal pens. We know little about the desertion of this settlement. Among the possible causes for desertion, the destruction of the Mongol Invasion, and /or reorganization of settlements by the landowner have been put forward. However, another aspect also needs to be taken into consideration. It is remarkable, that according to the results of my field-walking surveys, all deserted Árpadian Period sites appeared at 103-105m above sea level, in contrast to those sites which were inhabited in the fourteenth–sixteenth century period, which were all positioned around c. 108-111m above sea level. In my interpretation this change means that the desertion of Árpadian Age sites might have been influenced by some environmental changes (beside political or social processes), such as rise in the underground water levels. Wetlands or wet ecological environment must have been part of the medieval landscape at Monostor, thus hydrology is a key factor to understand settlement development.

The earliest topographic depiction of the hydrological situation at Monostor comes from 1857 (Fig 97). This map shows that the area was defined by a long, northwest-southeast directed series of brooklets (in Hungarian ‘ér’) called Virágszék ér, Ladányi ér, Templom ér, Csiri ér and Zsombó ér; and some larger and smaller sodic lakes. Further on, this central area is depicted as ‘Kis Zsombos’ (‘small tussocky’) and ‘Nagy Zsombos’ (‘large tussocky’) in 1885 and 1919. These watercourses were not depicted as having a clear cut beds, but place names refer to wet, swampy environment too. The first reference to the presence of wetland is from 1733, when in the southern part of Monostor the ‘semlyék’ (‘swamps’) are mentioned.³⁶⁹ It is apparent from the data of my field-surveys that this wet ecological environment primarily influenced the pattern of settlement in the medieval period, the Árpadian Age settlement-sites were all documented on higher elevations or ridges near or along swampy rivulets or sodic lakes.

Ground water tables are interconnected with environmental constituents; apparently climate change is among the most determinant elements defining the quantity of precipitation, thus the humidity of soils. As it was recently demonstrated, from the early fourteenth century a slowly cooling climatic period started in Europe, which meant more precipitation and cooler winter

³⁶⁹ MJ II, 97-98.

temperatures in the Great Hungarian Plain.³⁷⁰ Accordingly, my hypothesis is that along with the increase of the ground water levels the low-lying areas became unsuitable for habitation and were abandoned and remained uninhabited until the eighteenth century, when the first isolated farmsteads appeared in the area (Fig 107).

The other, major medieval site was located in the northern, Felsőmonostor part of Monostor. This settlement proved to be the most important site of the area. The latest archaeological surveys clarified that the short-lived monastery mentioned in documentary sources was also located there, which can be most likely identified as Pétermonostora. The medieval village at Felsőmonostor was investigated by field survey and aerial photography, but until now no excavation had been carried out in the settlement area of the site except for the parish church, the cemetery, and some details of the monastery.

According to the surface finds and excavation results, the settlement existed from the eleventh-twelfth until the mid-sixteenth century. The relation between the settlement and the monastery is essential from both chronological and morphological point of view. The connecting link between these two elements is the land owner of the territory. Thus, the development of the settlement can only be interpreted in the framework of these triple factors, namely owner, settlement and monastery (Figs 108-109).

First, it is important to note that the monastery was not built in an uninhabited vacuum, but rather into a network of existing settlements: according to the results of the field surveys, the early village and a sequence of smaller dispersed Árpáadian Age sites surely preceded the foundation and the building of the monastery. In particular, the first foundation trenches of the monastery's walls cut the graves of a row cemetery, which was opened around the mid-eleventh century and closed by the mid-twelfth century (Fig 110). Most probably, the site selection was not a coincidental choice, but rather a strategy of the founder, the Beche kindred. There is no further information on the fact whether it has any spiritual meaning that the monastery building was built on the site of the former cemetery. The cemetery was surely known by the founders as the termination of the cemetery coincides with the first building phase of the monastery in the second half of the twelfth century. The recent archaeological excavation revealed that the short-lived monastic complex was re-built in the first half of the thirteenth century, but deserted again and finally at latest by the turn of the thirteenth century.³⁷¹

³⁷⁰ For instance the analysis of fourteenth century perambulation charters revealed that several boundary marks were inaccessible because of the high ground water levels in the Great Plain. See Kiss, *Some weather events from the fourteenth century I-II*, György Györffy and Bálint Zólyomi, "A Kárpát-medence és Etelköz képe egy évezred ezelőtt" [The geographical conditions of the Carpathian basin and the Etelköz a thousand years ago], in: *Honfoglalás és régészet*, edited by László Kovács, (Budapest: Balassi, 1994): 13-37; Vadas, *Weather anomalies*, 34-36.

³⁷¹ The most recent excavation proved that the buildings were systematically demolished around that time.

The documentary sources suggest that the monastery and the villages were owned by the members of the Beche kindred. It is not clear whether the first abandonment of the monastery was a result of destruction caused by the Mongol Invasion in 1241-1242. The preliminary results of the excavation show that the buildings were not destroyed, but systematically and consciously removed in the early fourteenth century³⁷² which might be in connection with changes in ownership around the mid-fourteenth century. From this time on Monostor is mostly referred to as assembly of valuable assets, and thus noted for the *pertinenciae*, which are first mentioned in 1258. Regrettably, there is only a general description of the possessions which were attached to the monastery: we hear about villages with stone parish churches, and further lands as well as *predia*, without any indication of their location or details about them.³⁷³

Apparently, the composition and the dating of surface finds from the late medieval village indicate that the termination of the monastery did not mean the end of the settlement at Felsőmonostor; the abundant presence of fifteenth-sixteenth century pottery, including imported ceramics, underlines the importance of the site in that period. Thus, it can be concluded that the map by Lazarus from 1528 depicts this settlement at Felsőmonostor, which, was at that time possibly called Monostor, or Monstor ('Monastery') as it is labelled on that map even if by that time no monastic buildings had existed there for more than 200 years.

The late medieval settlement was almost certainly part of the monastic property. The village extended over a large area and the monastic complex was situated in the central part of the settlement area. One of the most intriguing questions might be what happened to the site of the monastery, in the middle of the village, after it was abandoned. The preliminary results of the excavation revealed that the area of the monastic buildings was levelled, and used as a communal space: the trampled sixteenth century walking level suggests that it was used either as a street or perhaps a market place. The monastic church, however, might have appeared as a standing or ruined building, as its unexcavated remains even today appear as a considerable, 5-7m high heap in the landscape.

The parish church of the community was first identified by Kálmán Szabó in the 1920s, then was re-excavated and surveyed by geophysical methods in the last years' research projects, which was partly conducted, partly assisted by myself. The church was a single, one-naved building, built of local limestone; with a semicircular apse, and a small vestry attached to the northern side of the building. The field survey indicated that this church was encircled by a ditch (Fig 111-112). The parish church was located 100m south of the monastic complex in 2002. Its planning and topographical context apparently resembles the typical arrangement of analogous sites in the

³⁷² Here I would like to thank Szabolcs Rosta for letting me writing about the results of the ongoing research.

³⁷³ 1347: MOL DL 87 200

region.³⁷⁴ The most characteristic dating finds from the church were the moulded bricks, which represent late Gothic, fifteenth-century architectural forms. The ground plan of the building corresponds with twelfth-thirteenth-century church layouts of the region. Thus it can be concluded that this small, Árpadian Age church was rebuilt, maybe enlarged in the fifteenth century.

There were several layers of medieval burials around the church. Unfortunately, the deep ploughing, which preceded the excavation, destroyed the uppermost layers, but even so, three to four burial layers were identified. There were few artefacts in the graves, among them a fourteenth-century Cuman-type silver earring, silver buttons and silver-mounted headdress was found (Figs 113-114).

According to the field survey and the aerial photos, the Árpadian Period settlement extended over a large, approximately 800m x 800 m area. We do not know whether this site was a loosely connected group of smaller hamlets or a larger nucleated village, but the surface finds suggest that in the late medieval period the nucleated core area of the settlement slightly moved towards the north-north-west side of the monastery. Again, similarly to the previously observed pattern in the case of Alsómonostor, it is clear that the lower areas (106-107 m above sea level) were abandoned by the end of the fourteenth century, and the later habitation areas were located on higher elevations (109-111 m above sea level) (Fig 115).

structure of the late medieval settlement represents the well-known street-village-type settlement. The aerial photos reveal that one of the major streets of the settlement led from the central areas (from the monastic site) towards north-north-western direction. As far as it can be assessed from the aerial photos, the line of this street is identical with that road, which is represented from the First Ordnance Survey in 1785 through the 1885 estate map, namely the road which leads from the direction of Halas towards Kecskemét (Figs 116-117). The line of the road can be followed about 500-600 m from the site of the monastery northwards, which may indicate the approximate size of the settlement. Those lines which are at right angles to this street most probably reveal the boundaries between the inner plots. In the lack of detailed excavation data, it cannot be decided from the aerial photos, whether all those smaller, rectangular features that can be spotted on the pictures around the monastic complex can be dated to the late medieval period, or they represent earlier Avar or Árpadian Age settlement features, which periods were also discovered at the site.

³⁷⁴ For example similar structure was identified at Szer, Ellésmonostor, or Csoltmonostor in the Danube-Tisza Interfluvium Region.

Katalin Vályi, "Szer monostora és települése az elmúlt 27 év kutatásai alapján" [The monastery and settlement at Szer after 27 years of research], in: *A középkor és a kora újkor régészete Magyarországon*, vol 1, 387-400; Éva Pávai, "Ellésmonostor kutatása" [The survey of Ellésmonostor], in: *A középkori dél-Alföld és Szer*, edited by Tibor Kollár, (Szeged: Csongrád Megyei Levéltár, 2000), 219-238; Irén Juhász, A Csolt nemzetség monostora [The monastery of the Csolt kindred], in: *A középkori dél-Alföld és Szer*, edited by Tibor Kollár, (Szeged: Csongrád Megyei Levéltár, 2000), 281-304.

5.2 SZENTKIRÁLY: A CUMAN VILLAGE IN THE DANUBE-TISZA INTERFLUVE REGION

The case of Szentkirály can be understood as a case study of a typical village of Cumans in the Danube Tisza Interfluve Region. What makes Szentkirály special is that this medieval village is among the best researched rural settlements in Hungary; its history and archaeological legacy had been surveyed in the last decades from various perspectives. These investigations are mainly connected with the work of András Pálóczi-Horváth who published several studies on the medieval village, many of them now being regarded as fundamental scholarly literature on medieval rural Hungary.

I chose this settlement as a case study for my thesis because of the available archaeological data from the previous investigations; moreover, I had the possibility to carry out archaeological excavation at this site between 2005 and 2008. I will not discuss and review all the published results of Pálóczi-Horváth, rather I will put his research into the framework of my excavation results, and try to supplement or single out the previous conclusions on the development of the settlement. As far as the main focus of my dissertation is the morphological, topographical development of rural settlements, these aspects will be emphasized in the following paragraphs, and all the excavated features will be examined from this perspective.

The today environment of Szentkirály is typical of the region; mainly intensely ploughed lands alternate with planted woodlands and recently abandoned fallow-lands. The settlement pattern is also characteristic. Beside the modern, planned village itself, a considerable number of farmsteads are existing and working in the area, with smaller nucleation of house- groups, typically next to former socialist cooperatives (Fig 118).

5.2.1 DOCUMENTARY SOURCES

The earliest reference to this territory comes from 1354, when King Louis I donated *terras nostras vacuas et habitatoribus a tempore, cuius non extat memoria, destitutas Zenthkiral et Mendzenth vocatas* to Cuman landowners, namely to Peter, son of Bwchwr, and his cousins, Baramuk, son of Kabak and Gallo son of Weztheg.³⁷⁵ In the same year, the boundaries of Szentkirály were perambulated, and recorded in another document.³⁷⁶ The next record is from 1493, when King Wladislas II affirmed the possessory rights of the Bychak noble family and the sons of Gaspar de Zenthkyral, and in the same year the king granted them the right of high jurisdiction.³⁷⁷

³⁷⁵ MOL DL 57794. Gyárfás, *A jász-kunok*, vol.2, 489.

³⁷⁶ Gyárfás, *A jász-kunok*, vol.2, 490-492.

³⁷⁷ Gyárfás, *A jász-kunok*, vol.2, 706-707; Gyárfás, *A jász-kunok*, vol.2, 708.

In the early sixteenth century the noble Palicsko family is referred to as landlord, and also Martin Szegedi, a merchant from Kecskemét is mentioned as owner.³⁷⁸ From the 1540s, the land became part of the Ottoman occupation area. Szentkirály was registered in the Ottoman tax rolls as an inhabited settlement throughout the sixteenth century.³⁷⁹ We do not know much about the Hungarian landowners in the sixteenth century; in 1588, due to the extinction of the previous owner, the Swkan family from Nagykőrös, King Rudolf I donated the part-possession of John Swkan to Ladislás Kubinyi.³⁸⁰

In the seventeenth century, inhabitants of Szentkirály are often referred to in the town protocols of Kecskemét and Kőrös, in connection with legal cases as adjudicators.³⁸¹ From 1676, Szentkirály is listed among the rented puszta-lands of Kecskemét.³⁸² According to local tradition, in 1692 the settlement was finally deserted, and all its inhabitants moved to the nearby Kecskemét.³⁸³ There is a list of seventeen peasants, most probably family heads from Szentkirály in the town protocols from 1701, which might be connected to this migration.³⁸⁴ In the eighteenth century, one part of predium Szentkirály was possessed by the Vay and the Ottlik families, and their successors, but it seems that most of the land was rented by Kecskemét.³⁸⁵ The earliest reference in the town protocols to the allotments of Kecskemét citizens at Szentkirály comes from 1709, when interestingly, not only arable fields but also the forest (or part of the forest) is being mentioned as parcelled and let.³⁸⁶ However, there are only few references to rented arable fields and forest-parcels in the eighteenth century last wills of Kecskemét citizens, which might indicate that most of the fields were not owned but rented. In 1789, the following joint owners were recorded: the town of Kecskemét, the town of Nagykőrös, the Vay family, the Gyürky family, Claudia Firstenpach, the widow of count Louis Grave, Krisztina Ottlik, Andrew Ottlik and the Bónis-heirs.

During the nineteenth century the smaller bits and pieces of lands were bought up by the town of Kecskemét, and throughout this century there was a deliberate policy on measuring out the territory to smaller parcels (both arable fields and the forest were allotted), which were partly let, partly sold to the citizens. Similarly to other deserted lands in the region, the settlement was re-founded and re-established from the turn of the twentieth century.

³⁷⁸ Ferenc Ádám, *Szentkirály évszázadai*, [The centuries of Szentkirály], Szentkirály: Szentkirály Község Önkormányzata, 2001, 48.

³⁷⁹ Káldy-Nagy, *A budai szandzsák*, 570-571.

³⁸⁰ Bártfai, *Pest megye*, 421.

³⁸¹ For instance in 1664 Mihály Tóth and Boldizsár Tóth, or in 1665 István Faragó and Gáspár Fekete are mentioned. MJ I 103-106.

³⁸² Ferenc Szakály, "A hódolt megye története" [The history of the subdued county], in: *Pest megye monográfiája I/2. A honfoglalástól 1686-ig*, edited by István Torma - Attila Zsoldos. Budapest: Pest Megye Monográfia Alapítvány, 2001, 481-482.

³⁸³ Hornyik, *Kecskemét város gazdasági története*,

³⁸⁴ MJ I, 195.

³⁸⁵ In 1712 the part-possession of the town at Szentkirály is mentioned in the town protocols. MJ II, 24.

³⁸⁶ MJ I, 197-198; MJ I, 209.

Its modern history is typical to the area, and represents some general features of modern settlement history, which has relevance to the understanding of the present pattern of settlement and landscape, thus it is important here to sketch it in some way. Typically, the reorganization of settlements begun with the appearance and opening of schools and ecclesiastical services: at Szentkirály, two puszta-schools were built around 1900, in 1901 the new Catholic church was consecrated, and in 1902 the Calvinist church was erected on the ruins of the medieval parish church. The increasing number of farmsteads and the growing population induced that in the 1920s, two additional puszta-schools were erected.³⁸⁷ The core of the present day village developed from the first decades of the twentieth century mainly around and north of the new Catholic church, on a formerly uninhabited territory, fortunately avoiding the territory of the medieval settlement. In 1952, the separation of the village was declared, which was at that time called not Szentkirály, but Lászlófalva. The village got its original name back in 1987, since then the settlement is called Szentkirály again. It is important to stress that the borders of the new village are identical with those boundaries that can be traced back to the earliest topographical representations of the territory.

5.2.2 MAPS

The first cartographic representation of Szentkirály, similarly to Monostor, comes from the earliest map of the Hungarian Kingdom by Lazarus dating from 1528, where the settlement is named as S.kyral (Fig 119).³⁸⁸ The earliest maps were delineated by Samuel Mikoviny in 1732 and 1737, but these representations do not give particular information of the territory, except for its location and name; on both maps only the name (Pr. Sz.Kiraly) and the site of the deserted church is presented.³⁸⁹

The first detailed estate map dates back to 1787, showing the lands owned by the Vay family (Fig 119).³⁹⁰ This depiction shows the western part of the predium. It delineates the location of the forest (Sylva), the site of the extended pastures in the south-western corner of this territory and the place of the medieval church ruin. The map is also informative of the neighbours such as Szentlőrinc, Borbás, Kocsér from the east and north, and in the eastern part Kecskemét.

³⁸⁷ The twentieth century history of the territory was summarized by the work of a local historian, Ferenc Ádám. Ferenc Ádám, *Szentkirály évszázadai*, [The centuries of Szentkirály], (Szentkirály: Szentkirály Község Önkormányzata, 2001).

³⁸⁸ *Tabula Hungariae ab quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalis secretarii...* Budapest, Országos Széchényi Könyvtár [National Hungarian Library], Apponyi Collection M 136

³⁸⁹ *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, by Samuel Mikoviny, 1732, and *Mappa Comitatus Pesthiensis* by Samuel Mikoviny, 1737. Both maps are catalogued in the HM Hadtörténeti Intézet és Múzeum [Institute and Museum for Military History], Budapest. The online resource for the maps can be found at: <http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jasz4.htm>; <http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jaszunksag.html>.

³⁹⁰ *Planum Exhibens Partem Vayanam Sz.Király*, 1787, Bács Kiskun Megyei Önkormányzat Levéltára [County Archives of Bács-Kiskun County], Kecskemét, XV. 1/a. 1. Szentkirály 13.

The 1793 county map still portrays Szentkirály as a deserted land.³⁹¹ Compared to the previous depictions, prominently more arable fields are shown, being most probably an illustration to the reports of the town protocols about the allotting fields from the 1740s (Fig 120, Fig 121). By the time the town map of Kecskemét in 1885 (Fig 122)³⁹² and the Third Ordnance Survey from the 1880s³⁹³ the Szentkirály area is inhabited by a dense network of isolated farmsteads (Fig 123). The town map from 1919 documents extensive changes in the landscape:³⁹⁴ the Szentkirály wood is basically missing from the map (named as Szentkirályi erdő- dűlő that is “Szentkirály forest-part”); its territory is represented as a ploughed land. At the same time a new wooded area appears in, the area Járás dűlő located south of the church ruin (Fig 124).

5.2.3 ARCHAEOLOGY

Archaeological investigations begun at Szentkirály in 1901, when Elek Kada, mayor of Kecskemét, launched excavations at the medieval church ruin, before the new Calvinist church was built on it. In 1933, Kálmán Szabó, the director of the Kecskemét Museum at that time surveyed the Árpadian age cemetery at Felsőszentkirály.³⁹⁵ One year later, Szabó excavated the grave of a high-born Cuman man, also at Felsőszentkirály.³⁹⁶ From 1969 to 1990, András Pálóczi-Horváth carried out systematic archaeological investigations in the deserted medieval village. These surveys covered around 1500 m², and all in all five smaller sections from the medieval village. From methodological point of view he performed a profound study of the site and the area, including the mapping of local archaeological topography, and environmental sampling (Fig 125).

Between 2005 and 2008 I had the possibility to carry out an excavation project in the central area of the medieval village, in the neighbourhood of the village church. This investigation was carried out because the local community intended to enlarge the cemetery of the present settlement, and the proposed extension area overlapped the medieval village site. Thus, the scale and the extension of the study area cannot be compared to the previous systematic and targeted investigations of András Pálóczi-Horváth. Instead, the 1500 m² research area, situated roughly 70 m

³⁹¹ *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, Országos Széchényi Könyvtár [Hungarian National Library], S12 Div 10 No 76:1-2

³⁹² *Kecskemét szabad királyi város területének átnézeti térképe*, by Gusztáv Rihocsek, 1885, Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1 483.

³⁹³ *A Monarchia III. katonai felmérése* [The 3rd Military Mapping Survey of Austria-Hungary], (<<http://lazarus.elte.hu/hun/digkonyv/topo/3felmeres.htm>>), accessed on 14 September, 2008.

³⁹⁴ *Kecskemét t.h. város külső területének térképe*, by Tibor Kerekes, (Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, 1919).

³⁹⁵ Szabó, *Az alföldi magyar nép*, 29.

³⁹⁶ András Pálóczi-Horváth localized the site of his excavation, near the Felsőszentkirályschool, in the vineyard of István Urbán. Pálóczi Horváth, *A felsőszentkirályi kun sírlelet*.

north-northeast of the medieval church, was interpreted as a random sample from the central part of the medieval village. This survey was supplemented by aerial photography (Figs 126-127).³⁹⁷

5.2.4 SETTLEMENT HISTORY/MORPHOLOGY

There are all in all eight sites dating back to the Árpadian Period in the territory of Szentkirály (Fig 128). Based on the previous investigations of András Pálóczi-Horváth and the archaeological database of the National Office for Cultural Heritage, it can be assumed that there were three major settlement cores with parish churches in the Árpadian Age,³⁹⁸ which are all mainly missing from the written documents. There is only one indirect reference from 1075 on the territory, in the context of a charter describing the lands donated to the Benedictine Abbey of Garamszentbenedek. This document delineates the boundaries of terra Alpar, explaining that the area later known as Szentkirály belongs to the royal castle of Csongrád (*partes Cseringradiensium civium*).³⁹⁹

Except for two sites (the site of the late medieval village and an additional seventeenth century site), the are data from field walking projects, thus the detailed chronology, or the histories of these settlements cannot be presented in details; the archaeological find material of the sites suggest that all the early settlements in the area were deserted at latest by the second half of the thirteenth century.

More precise dating is available in case of the late medieval village site, where András Pálóczi-Horváth's excavations proved that the place had been habited from the tenth century, as the part of the cemetery of an early community from that period was found not far from the later parish church.⁴⁰⁰ From the late eleventh century through the mid-thirteenth century, an extensive, loosely-structured settlement existed there, parts of which had been uncovered above the tenth-century cemetery. It was also demonstrated that this community built the earliest parish church there. Although the names of the early villages do not appear in pre-fourteenth century documentary sources, the name of the later settlement 'Szentkirály' (that is 'Sanctus Rex') probably refers back that the name of the village had been named as 'Szentkirály' already prior to the Mongol

³⁹⁷ The photos were taken by Zsuzsa Mikós (Archaeological Institute of the HAS) in 2005. Here again I would like to thank her for her help.

³⁹⁸ It has to be noted that two church-sites were only documented by field walking data and were not attested by excavation. The data was accessed on 3rd December 2011 from http://ivo/lel%C5%91hely?azon=&nyilvantartott=i&vedett=i&nev=&lszam=&telep=Szentkir%E1ly&megye=&tevek_enyseg=&jelenseg=&jelenseg_kora=>

³⁹⁹ Hornyik, Kecskemét története, vol. 1, 191-194.

⁴⁰⁰ The cemetery was opened in the tenth century and closed in the 1060-1070s. Pálóczi-Horváth, *Élet egy középkori faluban*, 12.

Invasion.⁴⁰¹ This settlement, similarly to other early sites of the area, is supposed to have become deserted around the mid-thirteenth century.

After the Mongol Invasion in 1241-1242, the territory was repopulated by an immigrating Cuman community, as their presence is confirmed by the solitary grave of a highborn Cuman man dating from the end of the thirteenth century.⁴⁰² We do not exactly know when the Cumans arrived or where they lived in the late thirteenth and fourteenth century period; it is supposed that they did not have fixed settlement(s), but rather dwelling sites in the area.⁴⁰³ The appearance and settlement of Cumans was part of the conscious royal strategy that aimed at the repopulation and reorganization of deserted royal properties after the Mongol Invasion in the Danube-Tisza Interfluvium Region.

The Cumans chose the site of their permanent settlement around the ruins of one deserted church and village, which site is referred to first as Szentkirály in 1354. Their site selection clearly demonstrates that their settlement process was influenced by the former pattern of habitation. The archaeological investigations revealed that the transitional phase of the Cuman settlement process ended in the first half of the fifteenth century, when the first fixed houses were built.⁴⁰⁴ According to András Pálóczi-Horváth, parallel to the construction of the first houses and buildings, the system of plots was established, and, the line of the streets was consolidated.

The late medieval village was in fact a street village settled along the roads that led from the direction of Kecskemét towards the crossing points at the Tisza River at Kécske (Ug) and another road, which led from the direction of Kőrös to Alpár. Thus, these roads became the main streets of the settlement (Fig 129). Luckily, their crossing point, and additional sections were uncovered by the archaeological excavations of the last decades. The archaeological surveys provided specific evidences that the route of the street became fixed in the first half of the fifteenth century.

⁴⁰¹ Recent toponym surveys revealed that those settlements having the word 'Szentkirály' ('Sanctus Rex') in them had parish churches dedicated to King Saint Stephen (1000-1038), canonized in 1083, rather than the other saint king of Hungary, King Saint Ladislaus (1077-1096), canonized in 1192. Such place names appear in Hungarian sources from the late twelfth century, and appear more intensely in the thirteenth century. Such place names appear in Hungarian sources from the late twelfth century, and appear more intensely in the thirteenth century. Gyula Kristó, "Szentkirály" *Magyar Nyelv* 74 (1978): 475-479; Loránd Benkő, "Az Árpád-ház szentjeinek szerepe a középkori Magyar helynévadásban" [The role of the saints of the Árpadian Dynasty in placename-giving traditions] *Magyar Nyelv* 89 (1993):18; András Mező, *A templomcím a magyar helységnevekben (11-15. század)* [The patron of parish churches in Hungarian place-names between the 11th to the 15th centuries], (Budapest: *Magyar Egyháztörténeti Enciklopédia Munkaközösség*, 1996); András Mező, *Patrocíniumok a középkori Magyarországon* [Patrocinium in medieval Hungary], (Budapest: *Magyar Egyháztörténeti Enciklopédia Munkaközösség*, 2003).

⁴⁰² Pálóczi-Horváth, *A felsőszentkirályi kun sírlelet*, 202.

⁴⁰³ It accepted in scholarly works that the lifestyle of the immigrating Cumans was more close to the sedentary way of living than to nomadism; one major proof for this is the appearance of large common cemeteries in the second half of the thirteenth century, some of which were located at the site of deserted (Hungarian) cemeteries and churches of the earlier period.

Pálóczi-Horváth, *A kunok feudalizálódása és a régészet*; Pálóczi-Horváth, *Régészeti és településtörténeti adatok a kunok letelepedéséhez*; László Selmeczi, "A kunok nomadizmusának kérdéséhez" [About the nomadism of the Cumans], *Hermann Ottó Múzeum Évkönyve* 25-26 (1988): 177-188.

⁴⁰⁴ Pálóczi-Horváth, *Élet egy középkori faluban*, 13.

Unfortunately, it cannot be decided from the available sources whether the system of roads preceded the settlement of the Cumans who realized the advantages of the crossroads, and chose this site deliberately from the former deserted village sites of the area as the most promising location, or it was the late settlement of the Cumans that allured the traffic to this route. However, it can be demonstrated from the historical maps of the area, that the system of traffic changed considerably by the modern period: the route of the northwest- southeast directed road, which was presented on the 1787 survey from the direction of Kőrös towards Alpár, and also visible on the aerial photo of the area, is basically missing from the nineteenth century depictions.

Concerning the general morphology of the late medieval settlement, András Pálóczi-Horváth concluded that the route of the major road of the village had a major effect on the development of the settlement, thus it was a fortunate and favourable research situation that the main axis of the study area between 2005-2008 became the main street of the settlement, various parts of which had been previously detected by András Pálóczi-Horváth.⁴⁰⁵

The unearthed 35 m long section of the medieval street was documented as being 8-9m wide (Fig 130).⁴⁰⁶ Except for a smaller area, where its surface was partly destroyed by modern ploughing, the road was detected as a light yellow, intensely trampled, concrete-like feature, on which the traces of the once cart-wheels were also recorded. Statigraphically, the street consisted of extremely thin, exfoliating layers of yellow clay, its depth was around 20-40 cm. The surface of the road was deliberately maintained and repaired; the pot-holes were regularly filled. On both sides of the road, coherent, cleaned and renewed ditch systems were identified, which were apparently used for drainage (Fig 131). The pedestrian traffic was assisted through wooden duck-boards towards the houses, which is indicated by a pair of post holes in the ditch, on the southern part of the road, which was visibly oriented to the building beneath (Fig 132).

The determination and dating of the street's earliest phase was an extremely important research task for the excavation project in 2005-2008. In this context, one excavated feature has to mentioned, a refuse pit, which was documented in the cross-section of the road structure. By chance, in this case the layers of the street fully covered the top of the pit. This object yielded pottery dating from the first decades of the fifteenth century, consequently, this route or section of the street most probably was not fixed before this date (Figs 133-134).

There were sadly finds on the latest surface of the road: mainly small bits and pieces of uncharacteristic crushed ceramics and animal bones were detected, besides, a coin from 1610, which probably indicate the last phase of its intensive usage. It is worth noting that just under the modern ploughed stratum, the remains of a modern road was also detected, possibly dating from the

⁴⁰⁵ Pálóczi-Horváth, *A Lászlófalván 1974-1975-ben végzett régészeti kutatások eredményei*, 286-287.

⁴⁰⁶ Previously, András Pálóczi-Horváth documented other sections as being 3,5-5 m wide. Pálóczi-Horváth, *A Lászlófalván 1974-1975-ben végzett régészeti kutatások eredményei*, 287.

18-19th century. This modern road was documented 40-50 cm higher than the medieval surface of the road, and actually, there was an undisturbed, compact humus layer between the remains of the two periods. This “modern” road was a dark brown-black is layer of trampled soil, which also preserved the wheel traces of carts. Most probably, the thick, distinct layer between the two periods represents the deserted, puszta-state of the territory, which, according to the documentary sources lasted until the last decades of the eighteenth century. The continuity of the route reflects the importance of this route in the regional traffic as well. The route of this road was identified on the aerial photo north-east from the study area, which can be related to the presentation of the estate map from 1787.

5.2.5 CHURCH AND CEMETERY

The focus of the settlement in the late medieval-early modern period was still the church of Árpáadian Age origin. In the earliest documented phase of the late medieval Cuman settlement, around the turn of the fifteenth century, the Árpáadian Age parish church was renewed and enlarged in Gothic style. Unfortunately, the rebuilding of the church in 1899 destroyed most part of the medieval architecture and the medieval cemetery around the building, thus only some details are known about it. According to the surviving south-western in situ stone walls, the late medieval church was a single-naved building, with polygonal apse, and the walls were supported by buttresses (Figs 135-136).⁴⁰⁷

The cemetery around the church was used until the late seventeenth century, when the village was deserted. Interestingly, in 1719, some decades after the village was abandoned, the town protocols of Kecskemét refer to the indulgence process to be held at the church at Puszta-Szentkirály, on the feast day of St. Ladislaus,⁴⁰⁸ which clearly shows the central function and “spiritual continuity” of the deserted site at the crossing of the roads.

⁴⁰⁷ The church was researched by András Pálóczi-Horváth in 1971. The ground plan and the size of the church correspond with the architecture of medieval parish churches of the region, its closes parallel is from the neighbouring *possessio Mindszent*, which was excavated by Kálmán Szabó. Pálóczi-Horváth, *A Lászlófalván 1974-1975-ben végzett régészeti kutatások eredményei*, 294-295.

⁴⁰⁸ *Szent László király napján a Szt Királyi pusztán Leendő Bucsurá... a Templom oldala mellett... ment vissza a Templomhoz...* MJ II 54 This reference is quite interesting because according to the local traditions, the patron of the parish was not St. Ladislaus but St. Stephen.

5.2.6 PLOTS AND HOUSES

It is suggested by the archaeological surveys of András Pálóczi-Horváth that there might have been a transitional settlement phase of the Cumans at the late medieval village site, which can be described by semi-subterranean houses,⁴⁰⁹ but roughly from the early fifteenth century, when the settlement became organized or permanently sited along the streets, the plots were measured out and the first above-ground houses were built. The late medieval-early modern system of inner plots can be reconstructed from the surveys of András Pálóczi-Horváth. He argued that the houses were located at a distance of 100-105m, which allows inferring that the width of the spacious inner plot was around 70-75m, making roughly 24 royal ulnae.⁴¹⁰

During his investigations, András Pálóczi-Horváth identified around thirty late medieval house-sites during field-walking, from those nineteen were excavated. The houses show substantial similarity in their building techniques and traditions; however, there were more variants of houses with two to four rooms.⁴¹¹ In all cases the entrance opened from the central part, which was used as the kitchen. From here, one could enter the smokeless living room, which was heated from the kitchen through a complex oven. This two-roomed arrangement was the basic proto-type of the houses, which were enlarged with one or two additional non-heated chambers with individual entries from the yard, used as pantries or sheds.

In the period between 2005-2008, three additional house parts were researched. The structural analyzes and description of house-types and their development, or the introduction of find material cannot be part of this thesis; here I would like to highlight some key elements which have morphological relevance. The three houses were oriented northwest-southeast, which associates to the direction of streets, the buildings were likely at right angles to the street.⁴¹² It is important that the sites of the houses remained stable during the fifteenth-sixteenth centuries, meaning that the houses were renovated or rebuilt literally at their earlier sites; this can be interpreted as a continuity of site selection, thus stability of the village plan.

In 2005, south of the street, the part of a northeast- southwest oriented building-part was excavated, as I mentioned previously, at right angles to the road. This building dates back to the turn of the fifteenth-sixteenth centuries (Fig 137). It was a typical wattle and daub construction, as

⁴⁰⁹ András Pálóczi-Horváth excavated a one-roomed, non-heated semi subterranean house dating from the second half of the fourteenth century (House Nr. 23.), which he associated and interpreted as the earliest Cuman settlement feature. However, the function of this building is unclear, it might have been a pen, or a "temporary" house.

⁴¹⁰ Pálóczi-Horváth, *A középkori falvak morfológiai variációi*, 366.

⁴¹¹ Some important literature on this:

Pálóczi-Horváth, *Development of the late medieval house in Hungary*; Pálóczi-Horváth, *Lakóház és telek rekonstrukciója Szentkirályon*, Pálóczi-Horváth, *Az alföldi késő középkori falusi lakóház: vázszerkezetek és falazatok*; Pálóczi-Horváth, *Elpusztult késő középkori falvak morfológiai variációi*.

The house types and their development were recently discussed by József Laszlovszky: Laszlovszky, *Későközépkori falusi lakóház Tiszaugon*.

⁴¹² It has to be mentioned here that András Pálóczi-Horváth previously thought that all the houses were parallel to the street. Pálóczi-Horváth, *Élet egy középkori faluban*, 13-14.

the foundation ditch and the post holes in it revealed. There was no heating apparatus or trace of inner division in the room on the excavated surface. Around the building, cut into the trampled walking surface, more external ovens were documented, besides, a refuse pit, filled with larger and smaller pieces of unprocessed lime stone (Figs 138-139).

This building, or this part of the building, was surely not a house for living, rather a kind of workshop, or a shed, or barn. Eight meters off this feature, a ditch was uncovered, which was parallel to the building and was at right angles to the street: this feature was described as a plot-boundary, or fence.⁴¹³

On the northern side of the street, parts of two living houses were uncovered in 2006-2008 (Fig 140). These houses were identified around ten meters north-east off the street. One of the buildings was oriented northeast-southwest; and they were at likely right angles to the street. The latest phase of this building, together with the remains of its above-ground walls was identified right beneath the grass and the modern ploughed stratum. The structure of the house appeared in the same system as it was previously documented by András Pálóczi-Horváth; the side walls were founded in a 0.60 to 0.70m deep ditch, into which a steady row of larger posts (diameter: 0.20-0.30m) and smaller sticks were placed. Interestingly, there was a dog's skeleton right beneath of the foundation ditch.⁴¹⁴ The house in this way was built around a framework of upright timbers connected with wattling and daubed with clay. Inside the building, the repeatedly renewed inner floor was documented. Consequently, the house had presumably more building periods, but its precise dating is not possible as no dating finds appeared from it. Based on the pottery that was documented from the latest phase of its surrounding walking level, it was abandoned in the second half of the sixteenth century. As far as the larger part of the building is located under the village cemetery, which is still in use, it was not possible to uncover the whole house. Still, the size and structure of the excavated remains are analogous to the three-roomed houses that were uncovered by András Pálóczi-Horváth (Figs 141-142).⁴¹⁵

Another house was also partially excavated. The orientation of the building cannot be convincingly stated; probably it was also at right angles to the street. The excavation revealed one section from its western wall, and the northwest corner of the house, which was enlarged with a small elongation, maybe a larder or a hovel. Again, the solid, trampled, renewed inner floor of the building was documented. This house is surely another example for those three-roomed house-types

⁴¹³ The exact function of this feature could only be clarified with the extension of the survey area. Similar features were also identified by András Pálóczi Horváth. See: Pálóczi-Horváth, *Élet egy középkori faluban*, 13.

⁴¹⁴ Another dog skeleton was observed similarly beneath the foundation trench of a house by András Pálóczi-Horváth. This special "tradition" is possibly connectable to beliefs of the Cuman people. Pálóczi-Horváth, *Lászlófalván 1969-1974-ben végzett régészeti ásatások eredményei*.

⁴¹⁵ This building is especially analogous with the House Nr 7, previously published Pálóczi-Horváth. Pálóczi Horváth, *Lakóház és telek rekonstrukciója Szentkirályon*; Pálóczi-Horváth, *Az alföldi késő középkori falusi lakóház: vázszerkezetek és falazatok*.

that were identified and described previously by András Pálóczi-Horváth. The scale of the excavation did not allow specifying the exact width and length of the documented buildings, but these were most probably similar in size to those excavated by András Pálóczi-Horváth: he concluded that the average width of the houses was cca. 4.9-5.3m and the length varied about 12.4-26.6m.⁴¹⁶

Although there is not much data to tell about the buildings themselves, their position and site can be put into the context of the late medieval settlement's morphological development. It is important that the distance between the two houses was not more than fifteen meters, and no features were identified between the two buildings, which might have been interpreted as a plot-boundary ditch or fence. Besides, there was a continuous trampled yard-surface between the houses, which proves that they were contemporaneously inhabited, and were deserted roughly in the same period. As far as the preceding investigations by Pálóczi-Horváth concluded that the width of an average peasant plot was around seventy meter, this might mean that these two houses stood on one plot.⁴¹⁷ Further on, this outline provokes, whether it is possible to interpret this pattern as the presence of more contemporaneous houses on the same plot, close to each other, which model is referred to in relation to fifteenth century inner desertion of settlements.

Between the houses and the street, a longish, pear-shaped semi-subterranean sty and the remains of a fence were identified. The sty consisted of an oval storage-part, and a rectangular entrance. There is no information on the function of this object; the find material did not contain any specific items, only few pottery and some animal bones (cattle and pig) were uncovered. The uppermost infill layer of this feature was observed in the same level as the latest walking level of the yard connected to the house, however, the ceramics uncovered from the object dated from the fifteenth century (Fig 143).

The fence was parallel to the street, and built as a series of upright posts in a shallow ditch, which were probably interwoven with sticks and wattle. The north-western terminus of the fence was repeatedly dug into the filling layers of the previously mentioned cellar, thus the fence was surely built after the cellar was given up. Likely, the abandonment of this structure, and the building of the fence can be related to the fixation of the street-route, and can be connected to the formation of the plot system in the early fifteenth century. It seems that the private and communal spheres were physically separated inside the village from that time on, which is attested by the presence of the fence between the road and the house.

Beside the houses, there were additional built elements in the yards, such as stables, semi-subterranean chicken- and pigsties, and especially correls. Interestingly, correls were built right next

⁴¹⁶ Pálóczi-Horváth, *Élet egy középkori faluban*, 14-15.

⁴¹⁷ Similar feature in the setting of houses was also observed by András Pálóczi-Horváth. Pálóczi-Horváth, *Lakóház és telek rekonstrukciója Szentkirályon*, 128.

to the houses in the yards, which most probably gave the villagescape a special appearance. András Pálóczi-Horváth argues that there were five-to six wells working contemporaneously in the settlement.⁴¹⁸

In the 2005-2008 research period, two major yard features were identified beside several refuse pits, which were most probably built in the earliest phase of the houses' construction: a large, deep, rectangular cellar, and a well (Fig 144-145).⁴¹⁹ The cellar was a cut as a roughly 2 m deep subterranean pit into the soil, its roof- structure was supported by posts in the corners and along the side-walls. The lavish find material from both features suggest that they were used until the turn of the fourteenth-fifteenth century, and were utilized as refuse pits through the fifteenth-sixteenth centuries; their latest filling layers coincide with the sixteenth century trampled yard-surface revealed between the houses.

At last, my observations together with the former results of András Pálóczi-Horváth provide adequate data drawing conclusions on the place of the village in the settlement system: Szentkirály was a regular street village in the fifteenth-sixteenth century. The excavation results suggest that the presence of streets and the plot system were the most important elements in the village morphology. The presence of sties and stables as well as possible storage-features in the courtyards of the houses suggests that the draught animals and the storage functions were performed in the village plots. My latest surveys at Szentkirály did not produce basically new features or object types, still the results, mainly the documentation of the medieval street and its micro-environment, refined some of the observations on the inner structure of the late medieval settlement.

6. THE LANDSCAPE OF MARKET TOWNS

In this chapter I will continue the discussion on the characteristic settlement forms by delineating the landscape of market towns in the Danube-Tisza Interfluve Region. I will interpret and discuss such specific aspects as urban function, role and hierarchy of the changing network of settlements in relation to Kecskemét, the central study object of the present section, to provide a specific perspective through the centuries to understand the key elements in its development.

In the first part, some general aspects and peculiarities of the regional and country-wide urban development trends are presented. Then, having a closer look on the study area, the discussion will focus on the hierarchy of towns in the Danube-Tisza Interfluve Region, and the place of Kecskemét in the regional settlement hierarchy. Kecskemét, is one of the most characteristic, and frequently cited example of this settlement form. Although the historical

⁴¹⁸ Pálóczi-Horváth, *Puits des villages médiévaux en Hongrie*.

⁴¹⁹ The exact dating of the well was not clarified as the object was not fully excavated; it was too deep and close to the recent cemetery, and thus due to health and safety reasons the documentation was stopped in a 2.20m deepness.

significance of the town has been appreciated in several scholarly studies, until the last decades all historical discussions on the town were based on the publications by János Hornyik from the 1860s.⁴²⁰ Yet, recently, the number of scholarly studies significantly increased, and some very important documents, such as the town protocols, the town statutes, and the last wills of the citizens were published, together with a new monograph on the history of the town.⁴²¹ Still, the early modern topography, and the morphological development of Kecskemét have not been summarized in detail. Accordingly town's main urban characteristics will be examined, such as the presence of local administration, the ecclesiastical institutions, the appearance of guilds, as well as debates around the existence of any residences in the settlement. Besides, the general as well as specific features of market towns' townscape will be presented.

6.1 AN OVERVIEW ON THE URBANIZATION IN THE CARPATHIAN BASIN, WITH A SPECIAL EMPHASIS ON THE DEVELOPMENT OF MARKET TOWNS

Concerning the general features of the urban development in Hungary, it has to be stressed that the heritage of the Roman Empire, which deeply influenced urbanization in other parts of Europe, only partially affected the medieval settlement network of the Carpathian Basin. Although the classic urban settlements were present in the Roman provinciae Pannonia and Dacia, but indeed even these areas were less intensely urbanized compared to western or southern Europe, and in fact most urban settlements were far from having the status and significance of civitates. Archaeological investigations suggest that towns and town life hardly survived the centuries which followed the fall of the Western Roman Empire, but it is being debated which elements of the Roman settlement legacy survived in what form and to what extent – in other words, whether there is any kind of continuity between the Roman and the medieval settlement pattern. Parallel, the central part of the Carpathian Basin has never been occupied or settled by the Romans, thus, there was no tradition of urban life before the medieval period.

In recent scholarly discussions, various layers of the surviving and reused Roman landscape were identified in Transdanubia, but no clear indication or trace of surviving Romanized population

⁴²⁰ Hornyik, *Kecskemét város története* vols 1-4, János Hornyik, *Kecskemét város gazdasági fejlődésének története*, (Kecskemét: Kecskemét Város Th. Múzeuma, 1927).

⁴²¹ Here I would like to refer to the work of Tibor Iványosi-Szabó. See for instance: *Kecskeméti szabályrendeletek* [Kecskemét town statutes], edited by Tibor Iványosi-Szabó, (Kecskemét: Bács-Kiskun Megyei Levéltár, 1991). (In the following referred to as *Szabályrendeletek*); *A kecskeméti magisztrátus jegyzőkönyveinek töredékei (1591-1711)*, [The fragments of the town protocols of Kecskemét, 1591-1711], edited by Tibor Iványosi-Szabó, (Kecskemét: Bács-Kiskun Megyei Levéltár, 1996). (In the following I will refer to this volume as MJ I); *A kecskeméti magisztrátus jegyzőkönyveinek töredékei (1712-1811)*, edited by Tibor Iványosi-Szabó, (Kecskemét: Bács-Kiskun Megyei Levéltár, 1998). (In the following I will refer to this volume as MJ II); *Kecskeméti Testamentumok I-IV. 1655-1848* [Last wills from Kecskemét I-IV], edited by Tibor Iványosi-Szabó, (4 vols, Kecskemét: Bács-Kiskun Megyei Levéltár, 2002-2004). (In the following I will refer to this volume as KT); *Kecskemét története* [The history of Kecskemét], edited by Tibor Iványosi-Szabó, (1 vol, Kecskemét: Kecskemét MJV önkormányzata, 2002).

groups were detected.⁴²² The former Roman towns of Pannonia such as Aquincum (Óbuda), Arrabona (Győr), and Scarbantia (Sopron) were depopulated and mostly ruined, however, in case of Sopianae (Pécs) and Savaria (Szombathely), continuity of settlement and the functional survival of major topographical elements were documented.⁴²³ At the same time, at Arrabona (Győr) a clear interruption was documented between the Roman and medieval archaeological layers.⁴²⁴ In many cases the Roman settlement ruins, or the surviving elements of the fortification as well as the street pattern had an obvious influence on medieval topography (for example at Sopron (Scarbantia), or at Óbuda (Aquincum), while in other cases former urban features, such as the administrative or the economic foci did not influence later development. In terms of the rural landscape, it was demonstrated that the Roman road network had certainly influenced later settlement policies, but specific land management techniques, such as water dikes and channels were also continuously maintained and used even in the Early Modern Period.⁴²⁵

The foundation of the Hungarian Kingdom around the first millennium opened a new phase in the urban development of the Carpathian Basin. Recent discussions on urbanization suggest that settlements with urban functions were present from the eleventh century in the region, mainly as protected groups or agglomerations of specialized settlement cores around or beside the market places of the bishopric seats and royal/administrative as well as feudal residences, however, the townscape of these settlements differed remarkably from the western image of urbanism. Beside the former Roman urban sites, numerous new pre-urban cores developed throughout the Kingdom east

⁴²² Réka Virágos, “Tájrégészet a Dunántúl 5-6. századi lelőhelyek értelmezésében. Approaches to Interpreting the 5-6th Century Landscape in Western Hungary” *Archaeologiai Értesítő* 133 (2008): 199-221.

⁴²³ In case of Sopianae the settlement core of the former Roman civil town shifted to the area of the former early Christian cemetery, where some chapels were being used even in the ninth century, and later in the eleventh century these structures were integrated into the developing bishopric seat. At Szombathely the former site of the Roman governors’ palace was used as an administrative center in the ninth century, and later became the centre of the medieval town. About early urbanization of Hungary in general: József Laszlovszky, “Frühstadtsche Siedlungsentwicklung In Ungarn”, in: Brachman, Hansjürgen ed., *Burg-Burgstadt- Stadt. Zur Genese mittelalterlicher nichtagrarischer Zentren in Ostmitteleuropa*. (Berlin: Akademie Verlag, 1995), 307-316; Engel, *The Realm of St Stephen*, 112-114, 244-247. (with further references), József Laszlovszky et al., “The Archaeology of Hungary’s Medieval Towns”, in: *Hungarian Archaeology at the Turn of the Millenium*, edited by Zsolt Visy, (Budapest: Ministry of National Cultural Heritage & Teleki László Foundation, 2003), 364-365.

⁴²⁴ Katalin Szende, “A Kárpát-medence városainak régészeti kutatása az elmúlt két évtizedben” [The Archaeological Research of Medieval Towns in the Carpathian Basin Since 1990], in: *A középkor és kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (2 vols, Budapest: MTA Régészeti Intézete, 2010), vol 1, 141-173.

⁴²⁵ For example in the present day Amásfüzitő-Szőny-Dunaalmás area, one section of the once the Roman road was built as a 7 m high embankment which crossed the bed of a creek and the marshes around it. The structure consisted of a flood gate, through which the water level was controlled. Studies on the landscape revealed that the structure was likely maintained until the eighteenth century. István Viczián-Friderika Horváth, “Római és 18. századi természetlakítás Tata és a Duna között” [Roman and early Modern landscape transformation between Tata and the Danube], in: *Környezettörténet. Az elmúlt 500 év környezeti eseményei történeti és természettudományi források tükrében*, edited by Miklós Kázmér, (Budapest: Hantken Kiadó, 2009), 95-108. Another example is the stone built dike at the Kikeri Lake in the territory of today Öskü and Pétfürdő (Veszprém County), where the structure was originally built in the Roman Period, and rebuilt/re-used in the Middle Ages. in: *Veszprém megye régészeti topográfiája*, edited by István Éri, (4 vols, Budapest: Akadémiai Kiadó, 1969), vol 2, 340.

and west of the Danube, without any Roman antecedents, including ecclesiastical seats and administrative foci (such as Veszprém, Kalocsa, Csanád, Somogyvár).

It seems that beside the protection and presence of royal, ecclesiastical or feudal residences, the development of communities with specific crafts and industries, specialization in land management (e.g. the appearance of wine production), the stimulating impacts of international trade and markets, the presence and immigration and settlement of German and Latin *hospes* populations⁴²⁶ had a crucial role in urban development, especially from the twelfth century. The appearance of Armenian as well as Jewish merchants at the settlements also signals the presence of early urban functions.⁴²⁷

The first wave of urban settlements comes into view in the documentary sources from the late twelfth and early thirteenth century in Hungary, much later than in many other parts of Europe. Even by this period only a handful of settlements could be called ‘civitas’ in the Western sense of the word; though an increasing number of them had certain privileges and various forms of autonomy, in fact only some of them achieved full urban liberties.

The main elements that influenced and changed the socio-economic structures in the thirteenth-fourteenth century were described in the previous chapters. Concerning urbanization, the development of the inner trade and the market network of the country brought a major rearrangement of the countryside. There was a well-definable conscious policy of strengthening urban communities by granting privileges during the reign of King Andrew II, King Béla IV and King Stephen V. However, not all settlements that had received privileges were able to maintain their urban status. By the fifteenth century, around thirty to forty major chartered towns can be counted on the territory of the Kingdom, among them the most prestigious ‘free royal towns’ (*liberae civitates regiae*),⁴²⁸ under the jurisdiction of the *magister tavernicorum*, and the ‘free mining towns’, governed by the royal chamber.⁴²⁹

⁴²⁶ The word *hospes* originally meant “free guest”, who were invited to settle on the royal domain, or at an ecclesiastical or secular estate, and for this, the group of settlers was granted special rights, exemptions and protection which became the basis for the urban liberties of the next centuries. Most of the *hospites* arrived from Western Europe, from Romance-speaking regions (‘Walloons’, ‘Latins’) and German territories (‘Germans’, ‘Saxons’). The first immigrants arrived in the late eleventh century, which was followed by a larger immigration wave throughout the twelfth-thirteenth centuries. The earliest model of urban liberties became the privileges of the Walloon citizens (*Latini*) of Székesfehérvár, the so called ‘liberties of Fehérvár’, to be replaced by the ‘liberties of Buda’ from the late thirteenth century onwards. See: Engel, *The Realm of St Stephen*, 60–61, 244–247. Erik Fügedi, “Középkori magyar városprivilegiumok” [Medieval Hungarian towns privileges], *Tanulmányok Budapest múltjából* 14 (1961): 17–107 (Reprinted in his *Kolduló barátok, polgárok, nemesek* [Mendicant friars, burghers, nobles], (Budapest: Magvető, 1981), 238–311, 493–509.), Vera Bácskai, *Városok Magyarországon az iparosodás előtt* [Towns in Hungary before the industrialization], (Budapest: Osiris Kiadó, 2002) 24–25.

⁴²⁷ Laszlovszky, *Frühstädtische*, 309.

⁴²⁸ Buda, Pressburg/Pozsony, Trnava/Nagyszombat, Sopron, Kosice/Kassa, Bardejov/Bártfa, Presov/Eperjes, and Pest. See András Kubinyi, “‘Szabad királyi város’ – ‘Királyi szabad város’?” [Free royal town – Royal free town?], in *Urbs. Magyar Várostörténeti Évkönyv* 1 (2006): 51–61.

⁴²⁹ The most important mining towns were: Baia Mare/Nagybánya; Zlatna/Zalatna, Baia Spire/Felsőbánya, Kremnica/Körmöcbánya, Banská Štiavnica/Selmecbánya, Banská Bystrica/Besztercebánya, Pukanec/Bakabánya, and

An additional major feature of the thirteenth-fourteenth century complex transformation was the emergence of a new urban settlement form beside the civitates, called ‘oppidum’ (‘market town’, ‘mezőváros’) by the sources.⁴³⁰ These settlements represent a rather diverse group of sites, from populous settlements with urban central functions to small villages. The common feature about them is that they were under seigniorial jurisdiction, and enjoyed limited autonomy and privileges. The number of settlements referred to as oppidum most dynamically increased between 1390 and 1490, especially in the second half of the fifteenth century.

Date	Number of new oppida references	Total number of oppida
Before 1390	50	50
1390-1441	249	299
1441-1490	331	630
1490-1526	79	709

Table 5 Increase of the oppida’ number as reflected by the first documentary references

It seems that the general countrywide pattern of market towns was balanced; yet, the distribution of oppida in contrast with the chartered towns shows a remarkably different picture (Fig 146). In fact, no chartered towns but market towns can be found south of the line of Zagreb–Székesfehérvár – Buda/Ofen – Pest – Košice/Kassa – Baia Mare/Nagybánya – Cluj-Napoca/Kolozsvár – Sibiu/Nagyszeben, in the Great Plain region, except for Szeged, which settlement got its royal privileges relatively late, in 1498.⁴³¹

Numerous theories have been formulated to explain this special model. In most discussions, there are two main attributes, namely the degree of urbanization and the presence of urban functions in the large and varied group of urban settlements what is being debated and interpreted variously. One of the major challenges for Hungarian historiography is to distinguish ‘market towns’ from either villages or privileged cities, consequently, it is very problematic to calculate the number of all

L’ubietová/Libetbánya, Nová Baňa/Újbánya, and Banská Belá/Bélabánya, Gelnica/Gölnicbánya, Smolník/Szomolnokbánya, Rudabánya, Jasov/Jászó, Telkibánya, Rožňava/Rozsnyóbánya and Spišská Nová Ves/Igló.

⁴³⁰ This settlement type is also known from all other European countries. See: *Small towns in Early Modern Europe*, edited by Peter Clark, (Cambridge University Press, 1995); *Town and Country in Europe 1300-1800*, edited by S.R. Epstein, (Cambridge University Press, 2004); Erik Fügedi, “Die Ausbreitung der städtischen Lebensform: Ungarns oppida im 14. Jahrhundert”, in *Stadt und Stadtherr im 14. Jahrhundert. Entwicklungen und Funktionen*, ed. Wilhelm Rausch, (Linz, 1972), 165–192.

⁴³¹ András Kubinyi, “Városhálózat a késő középkori Kárpát-medencében” [Urban network in the Carpathian Basin in the Middle Ages], in *Történelmi Szemle* 46 (2004): 1–30.

those settlements which can be defined as “towns” at one point of time. This seems to be a rather quantitative problem at first sight; however it has deeper consequences as it has a direct effect on the definition of the concept of “town” itself.

It was Dezső Csánki, who first attempted to collect all data on those sites which are at least once mentioned as *civitas* or *oppidum* in medieval written evidence. Filtering through all available documentary sources at his time, he suggested that there were around eight hundred to nine hundred urban settlements in the kingdom of Hungary in the late medieval period.⁴³² His opinion was soon contradicted by Elemér Mályusz, who argued that urban settlements should be determined by pure legal characteristics, following the sixteenth-century definition of István Werbőczy.⁴³³ In accordance with this statement, Mályusz declared that there were only few, a mere thirty ‘real’ towns in the medieval kingdom and debated the urban character of settlements mentioned as *oppidum*. Even if he realized the economic potentials of *oppida*, in his interpretation market towns remained the main internal economic rivals for “real towns” in the fifteenth century.⁴³⁴ His views were widely accepted and these theories fundamentally influenced the directions of urban studies for decades.

Until the late 1960s, historians failed to perceive the actual role of market towns in the urbanization as well as in the economic development of the Kingdom. Thus, *oppida* have been referred to as rather a pejorative category and were always contrasted to “real” towns. While chartered towns were characterized as the particular centers of specialized crafts and long-distance trade, market towns were described as local or regional market centers, with the presence of limited, basic crafts, where agriculture dominated the economy. It was suggested by Jenő Szűcs, another prominent social and economic historian, in his book published in 1955 that the presence of *oppida* caused rivalry and an unhealthy competition for the inner markets. He argued that this finally led to a major block in the development of the town network in Hungary and was partly responsible for the passive balance of export trade in the late medieval period. Consequently, market towns were interpreted basically as backward features of the medieval and early modern countryside, in a subdued legal condition, which got stuck in an early development phase between villages and towns

⁴³² The first survey based on fourteenth-fifteenth century documentary sources was published by Dezső Csánki. Dezső Csánki, *Magyarország történelmi földrajza a Hunyadiak korában* [4 vols, Historical Topography of Hungary in the Age of the Hunyadies], (Budapest: Franklin, 1890-1913.)

⁴³³ István Werbőczy (c.1458-1541) was a jurist, statesman and palatine of Hungary. His most important work was the *Opus tripartitum juris consuetudinarii inclyti regni hungariae* (short form: *Tripartitum*), which was the de facto law-book of Hungary until 1848. The full Latin text (with English translation) of Werbőczy's *Tripartitum* (as printed by Singrenius in 1517) was published as *The customary law of the renowned Kingdom of Hungary: a work in three parts, the "Tripartitum" = Tripartitum opus iuris consuetudinarii inclyti regni Hungariae*; edited and translated by János M. Bak, Péter Banyó, and Martyn Rady; with an introductory study by László Péter; (Idyllwild, CA, and Budapest: Schlacks and CEU Press, 2005).

⁴³⁴ Elemér Mályusz, “A mezővárosi fejlődés” [The development of the market towns] in: *Tanulmányok a parasztság történetéhez Magyarországon a 14. században*. György Székely, ed., (Budapest: Akadémiai Kiadó, 1953); Elemér Mályusz, “Gesichte der Bürgertums in Ungarn” *Vierteljahrschrift für Sozial und Wirtschaftsgeschichte* 20 (1927-28): 356-407.

and retarded the economic development of the country.⁴³⁵ From the 1970s, it was András Kubinyi, who, influenced by the central-place theory of Walter Christaller,⁴³⁶ the functional town-concept of Dietrich Denecke,⁴³⁷ and the works of Tibor Mendöl,⁴³⁸ Jenő Major,⁴³⁹ György Székely,⁴⁴⁰ Vera Bácskai⁴⁴¹ as well as Erik Fügedi,⁴⁴² convincingly proved that the overwhelming majority of the market towns appeared and developed in regions where privileged royal cities were not present, consequently, market towns were essentially not competitors of these, but in fact their network performed real urban functions in areas lacking privileged settlements. Based on this theory, he formulated a new, functional definition of urban settlements, and argued that there is a hierarchic spatial order in the late medieval and early modern settlement network of the Hungarian Kingdom. Moreover, stressing that the growth of the oppida is a primary result of the expansion in the market production, he questioned the passive balance of export and import trade in the late fifteenth and early sixteenth century, and argued that market towns not only completed the overall network of settlements of pre-modern Hungary, but contributed greatly to the foreign trade, which was not at all passive, but balanced due to the large scale export of agricultural products (mainly livestock such as oxen) originating from the market towns themselves.⁴⁴³

Emphasizing that the market towns were key factors in the late medieval and early modern settlement system and economic production of the country, Professor Kubinyi built up a whole set of criteria to select and define those market towns, which had real central urban functions in the larger group of settlements mentioned as oppida. He investigated ten standard characteristics, namely:

⁴³⁵ This theory was first outlined by Elemér Mályusz, and later further developed by Jenő Szűcs. See especially: Jenő Szűcs, *Városok és kézművesség a XV. századi Magyarországon*, (Budapest: Akadémiai Kiadó, 1955); Jenő Szűcs, "Das Städtewesen in Ungarn im 15-17. Jr." *Studia Historica* 52 (1963): 97-164.

⁴³⁶ Walter Christaller, *Die Zentralen Orte in Süddeutschland. eine ökonomisch-geographische Untersuchung über die Gesetzmäßigkeit der Verbreitung und entwicklung der Siedlungen mit städtischen Funktionen* (Jena, 1933).

⁴³⁷ Dietrich Denecke, "Der geographische Stadtbegriff und die räumlich-funktionale Betrachtungsweise bei Siedlungstypen mit zentralen Bedeutung in anwendung auf historische Siedlungsepochen", in: *Vor- und Frühformen der europäischen Stadt im Mittelalter*, edited by Herbert Jahnkuhn, Walter Schlesinger and Heiko Steuer, (2 vols, Göttingen: Vandenhoeck & Ruprecht, 1973), 33-55.

⁴³⁸ Tibor Mendöl, *Általános településföldrajz* [General settlement geography], (Budapest: Akadémiai Kiadó, 1963).

⁴³⁹ Jenő Major, "A magyar városhálózatról" [About the network of towns in Hungary] *Településtudományi Közlemények* 16 (1964): 32-65.

⁴⁴⁰ György Székely, "Vidéki termelőágak és az árukereskedelem a XV-XVI. században" [Rural farming and trade in the fifteenth-sixteenth centuries] *Agrártörténeti Szemle* 3 (1961): 309-322.

⁴⁴¹ Vera Bácskai, *Magyar mezővárosok a XV. században* [Hungarian market towns in the fifteenth century], (Budapest: Akadémiai Kiadó, 1965).

⁴⁴² Fügedi, *Die Ausbreitung*, 168-172.

⁴⁴³ His main contributions to the topic: András Kubinyi, "A középkori magyarországi városhálózat hierarchikus térbeli rendjének kérdéséhez" [About the hierarchic spatial order of the Hungarian settlement network] *Településtudományi Közlemények* 23 (1971): 58-78; András Kubinyi, "A magyarországi városhálózat XIV-XV. századi fejlődésének néhány kérdése" [Some questions of the urban development in Hungary in the fourteenth-fifteenth centuries] *Tanulmányok Budapest Múltjából* 19 (1972): 39-56; András Kubinyi, *Városfejlődés és vásárhálózat a középkori Alföldön és az Alföld szélén* [Urban development and market network in the Great Plain Region] *Dél-alföldi Évszázadok* 14., (Szeged: Csongrád Megyei Levéltár, 2000); András Kubinyi, "Városhálózat a késő középkori Kárpát-medencében" [The late medieval network of towns in the Carpathian Basin], in: *Bártfától Pozsonyig: Városok a 13-17. században*, edited by Enikő Csukovits and Tünde Lengyel, Budapest: MTA Történettudományi Intézete, 2005) 9-37.

1. the presence and nature of any overlord's residence, from local landowners to royal residences
2. the presence of judicial authorities or loca credibilia,
3. the presence of organs/offices of financial administration;
4. the role of local churches in the ecclesiastical hierarchy,
5. the presence of religious orders, especially mendicant houses,
6. the number of students attending foreign universities between 1440-1514,
7. the number of or references to craft or trade guilds,
8. the function of the site as nodal point in the road system: how many other central places can be reached from the settlement without going through other central sites,
9. market rights, the number of weekly markets and annual fairs held
10. the legal status of the settlement.⁴⁴⁴

This model was supplemented with a system of calculation comprising 10x 6 centrality points (according up to six points to each of the ten categories listed above), which enables researchers to separate the functional groups and rank and compare the urbanity of various settlements (Fig 148).

⁴⁴⁴ Kubinyi *Városfejlődés*, 15. He tested this method on the southwestern part of the country (Somogy, Vas, Zala and Veszprém counties), then he turned towards the northwestern corner of the country (Sopron, Moson nad Győr counties), then Abaúj, Borsod, Heves and Torna counties, which was followed by the investigation of the Great Plain region, including twenty counties). His system was applied by further investigations, such as Borsod county by Péter Tóth and Gömör, Kishont counties by Örs Kolmann; Péter Tóth, „Egy borsodi mezőváros kapcsolatai a középkorban és a korai újkorban”, in: *Mikrotörténelem: vívmányok és korlátok. Rendi társadalom – polgári társadalom* (Miskolc: Hajnal István Kör, Borsod-Abaúj-Zemplén Megyei Levéltár, 2003), 266–273.; Péter Tóth, „Civitas Jasonica”. A középkori járszági városfejlődés némely sajátossága”, in: *URBS. Magyar Városhistória Évkönyv III*, László Á. Varga, ed., (Budapest, Pest Megyei Levéltár, 2008). 449–455; Örs László Kollmann, „Az észak-gömöri központi helyek középkori és kora újkorai fejlődése” [The development of central places in North-Gömör during the medieval and early modern periods], in: Bártfától *Pozsonyig: Városok a 13-17. században*, edited by Enikő Csukovits and Tünde Lengyel, (Budapest: MTA Történettudományi Intézete: 2005), 47-122.

Category	Name of town	Centrality points
I. Primary urban centers	Buda	55
	Szeged	42
	Pest	41
	Oradea/Várad	41
II. Major urban centers, important ecclesiastical and administrative centers	Eger	33
III. Smaller towns and significant market towns with remarkable urban functions	Bač/Bács	30
	Debrecen	28
	Csanád	27
	Gyula	27
	Gyöngyös	24
	Kalocsa	21
IV. Market towns with medium urban functions	Nyírbátor	19
	Pásztó	17
	Túr	17
	Kecskemét	16-18
	Cegléd	16
	Hatvan	16
	Heves	16
V. Central places with limited urban functions	Bátmonostor	14
	Baja	14
	Pataj	14
	Szolnok	13
	Halas	12
	Ráckeve	11
	Szentes	11
	Solt	11
VI. Villages resembling market towns	Jászberény	11
	Nagykőrös	10
	Szer	10
	Csongrád	9
	Pótharaszti	7
	Vacs	6
VI. Unimportant oppida and villages with central functions	Foktő	6
	Fajsz	5
	Jakabszállás	3
	Csomorkány	3

Table 6 The central places in the Great Plain Region, with their centrality points as suggested by András Kubinyi (after the data by Kubinyi, Városhálózat a középkori Kárpát-medencében)

According to the above-described system developed by Professor Kubinyi, there were around five hundred settlements with some kind of central functions in the territory of the Hungarian Kingdom around the turn of the fifteenth century, which can be grouped into seven major hierarchical categories, from the most developed urban centers to small local market sites. Among these settlements around two hundred sites can be defined as urban sites, in which approximately 8-10% of the overall population of the kingdom lived. Among them, thirty chartered royal civitates, thirty royal oppida and one hundred and forty additional market towns of lay or ecclesiastical landowners can be counted.⁴⁴⁵ At the same time, this ranking of the settlements also points to another crucial aspect, namely that there is a well definable regularity between the hierarchical order and the distance of the settlements fulfilling central functions, which can also be connected to a late medieval term, the “rasta” or “rast”. The “rasta”, as referred to by contemporary documents, is equivalent with 2 medieval Hungarian miles, which makes approximately 16 km (Fig 147).⁴⁴⁶

Professor Kubinyi showed that no markets were held on the same day within one rasta’s distance. Further on, relating this to the hierarchic order of settlements, it can be highlighted that the average distance between settlements with similar urban functions are more or less the same. In this system, two-, eight- and twenty-four-rasta distances had special importance, as they can be connected to small-, medium-, and large-distance market zones of the largest urban settlements. It is remarkable that the majority of market towns emerged along the borderlands of such market zones.

⁴⁴⁷

6.2 THE DEVELOPMENT OF THE TOWN NETWORK DURING THE PERIOD OF OTTOMAN OCCUPATION

In spite of all its explanatory potential, the scheme sketched above allows drawing a rather static snapshot of the late medieval (late fifteenth – early sixteenth-century) countryside. The present discussion attempts to step beyond these frameworks and trace the development of market towns from their earliest development phases to the following, sixteenth and seventeenth centuries too. This approach seems to be even more justified, since in fact no considerable breaks or recession

⁴⁴⁵ Without the territory of Slavonia and Transylvania. Kubinyi, *Városfejlődés*; István Petrovics, “A középkori mezővárosi gazdálkodás” [Medieval economy of market towns], in: *Gazdaság és Gazdálkodás a középkori Magyarországon: gazdaságtörténet, anyagi kultúra, régészet*, edited by András Kubinyi, József Laszlovszky and Péter Szabó (Budapest: Martin Opitz Kiadó, 2008), 450.

⁴⁴⁶ Kubinyi, *A magyarországi városhálózat*, 42-43; Kubinyi, *Városfejlődés és városhálózat*, 35-36.

⁴⁴⁷ These market zones were first identified by Jenő Szűcs: Szűcs, *Városok és kézművesség*, 106; and later refined by András Kubinyi: Kubinyi *Városfejlődés*, 39. For example the principal cities Szeged and Pest are lying approximately 160 km distance from each other (24 rasta), which is equal with the Pest-Pozsony or Szeged –Várad distances. Kecskemét is approximately 120 km from both Pest and Szeged, which makes eight rasta, while there is about 33 km distance between Kecskemét and Cegléd, which is two rastas.

can be observed in the settlement network until the fifteen years' war at the turn of the sixteenth century, while the seventeenth century opened a relatively new development phase from both political and economic points of view.⁴⁴⁸

The above-sketched late medieval structure or hierarchy of urban sites was namely neither stable, nor predetermined. Recent studies have argued that the hierarchy of settlements transformed noticeably during the sixteenth and seventeenth centuries. This process was influenced by both international and national economic as well as political tendencies, such as the significant increase in agricultural prices, the slowing down of population growth in Western Europe, or the advance of the Ottoman Empire in Central and Eastern Europe. More closely, the main international trends show that there were two categories of urban settlements in this period which significantly developed, namely the national capitals and the large harbors in Western Europe, while many small towns lost their one-time regional weight.⁴⁴⁹ In a European perspective, the late medieval urban network of the Hungarian Kingdom consisted of middle- and small sized towns, and centers of restricted international trade (no important coastline!), which met with the largest losses elsewhere.⁴⁵⁰ Moreover, many important and populous towns, such as Pest, Buda, Szeged, Várad, Eger, Gyöngyös and Kecskemét were conquered by the Ottomans, others, such as Debrecen had to pay taxes to both the Habsburgs and the Ottomans (and at times even to the Prince of Transylvania). Interestingly, despite all these difficulties, this period cannot be interpreted as a total decline of urban settlements in Hungary, but rather as a cautious adaptation to the varying historical situation.

It has even been recently questioned whether the slowing or reversal of demographic trends and the stagnation or weakening of crafts, which were interpreted as the two most emblematic signs of decline in other parts of Europe, afflicted all towns of Hungary at the same level.⁴⁵¹ Another distinctive feature of the changes was that several former high-status privileged medieval towns such as Bardejov/Bártfa, Prešov/Eperjes, and Sopron temporarily or continuously lost their significance, while other chartered towns, such as Trnava/Nagyszombat or Košice/Kassa, increased

⁴⁴⁸ It was Vera Bácskai and Ferenc Szakály, who called attention to this important factor. Bácskai, *Városok Magyarországon az iparosodás előtt*; Szakály, *A hódolt megye*, 335-339.

⁴⁴⁹ Jan de Vries, *European Urbanization 1500-1800*, London: Meuthen & Co, 1984, 254-355; Bácskai, *Városok*, 64-82.

⁴⁵⁰ The medieval capital Buda had around 12-15 000 inhabitants, but the population of the majority of chartered towns was between 2000 to 5000 citizens. See András Kubinyi, "Városfejlődés a középkori Magyarországon", in: *Magyar középkori gazdaság- és pénztörténet*, edited by Márton Gyöngyössi, (Budapest: Bölcsész Konzorcium, 2006), 163.

⁴⁵¹ Bácskai *Városok*, 66-67. Ferenc Szakály, "Miskolc helye Magyarország a török kori település- és gazdasági rendszerében" [The place and role of Miskolc in the settlement hierarchy and economic system of Hungary during the Ottoman occupation period], in: *Miskolc története*, edited by Ferenc Szakály, (2 vols, Miskolc: Borsod-Abaúj-Zemplén Megyei Levéltár-Herman Ottó Múzeum, 1998), vol 2, 503-530.; József Bessenyei, "A menekültek és a magyarországi városhálózat átalakulása a török hódítás kezdeti periódusában" [The refugees and the pattern of towns in the early period of the Ottoman occupation], in: *Tanulmányok Szakály Ferenc emlékére*, edited by Pál Fodor, Géza Pálffy, and István György Tóth (Gazdaság- és Társadalomtörténeti Kötetek 2, Budapest: MTA TKI Gazdaság- és Társadalomtörténeti Kutatócsoport, 2002), 75-87; József Bessenyei, "Änderungen im Städtenetz Ungarns in der Anfangsphase der türkischen Besatzung unter besonderer Berücksichtigung der geflohenen Bürger" *Publicationes Universitatis Miskolciensis. Sectio Philosophica* X (2005): 3-20.

their importance. Parallel to these changes, those oppida which were intensively involved in export-oriented agricultural production, among them Kecskemét and Debrecen, emerged to the highest level in the hierarchy of towns, both from economic and demographic points of view. Therefore, the latest discussions on the topic have claimed that in the Hungarian Kingdom the overall number of urban settlements did not change, but the hierarchy of urban settlements became strikingly rearranged by the end of the seventeenth century.⁴⁵²

Summing up the main tendencies of urban development in Hungary, it must be pointed out that from the fourteenth century onwards both the process of urbanization and the network of towns cannot be interpreted without taking the oppida into account. One part of the market towns fulfilled proper urban functions, which greatly contributed to the economic development of the country. The mapping of chartered towns and those oppida with urban functions suggests that a hierarchically structured network of urban settlements existed in late medieval and early modern Hungary. The real flowering of market towns can be observed from the second half of the fifteenth till the early seventeenth century. The data on the economic status, social stratification as well as the population figures of these settlements indicate that some of the market towns, even if still missing legal approval of their urban status, should be considered as real towns at latest by the end of the seventeenth century.

6.3 THE TOPOGRAPHICAL AND ARCHAEOLOGICAL RESEARCH OF MARKET TOWNS

As a general tendency, it can be assumed that market towns have attracted much less archaeological interest than other types of medieval settlements, such as high-status urban centres or villages in the last decades. On the one hand this is reasonable, since the continuous occupation of settlement sites from the historic (or prehistoric) period till the present offered less opportunity for systematic archaeological research, and in fact there are only a handful of deserted oppida in Hungary that are available for large-scale excavation.⁴⁵³ On the other hand, for a long time,

⁴⁵² Bácskai, *Városok*, 59-82; József Bessenyei, “Debrecen 16. századi szerepe a távolsági kereskedelemben” [The role of Debrecen in long distance trade in the 16th century], in: *Debrecen város 650 éves. Várostörténeti tanulmányok*, edited by Attila Bárány, Klára Papp, and Tamás Szálkai, (Debrecen: Alföldi Nyomda Zrt, 2011), 243-250.

⁴⁵³ There are three deserted market towns which were systematically researched, namely Muhi, located in the north-eastern border zone of the Great Plain Ete, situated in south-west Transdanubia, and Szer in the Danube-Tisza Interfluvium Region.

About Ete: Zsuzsa Miklós and Márta Vizi, “Adatok a középkori Ete mezőváros településtörténetéhez” [Data on the history of the medieval market town Ete], in: *A hódoltság régészeti kutatása. A Magyar Nemzeti Múzeumban 2000. május 24-26. között megtartott konferencia előadásai*, edited by Ibolya Gerelyes and Kovács Gyöngyi, (Opuscula Hungarica 3, Budapest: Magyar Nemzeti Múzeum, 2002), 195-208; Zsuzsa Miklós and Vizi Márta, “Adatok a középkori Ete mezőváros településszerkezetéhez és háztípusaihoz” [The settlement structure and house-types of the medieval market town Ete], in: *Népi építészeti és honfoglalástól a 18. századig*, edited by Miklós Cseri and Judit Tárnoki, (Szentendre-Szolnok: Szentendrei Néprajzi Múzeum-Szolnoki Damjanich Múzeum, 2001), 261-280; Zsuzsa Miklós and Márta Vizi, “Beiträge zur Siedlungsgeschichte des mittelalterlichen Marktfleckens Ete” *Archaeologica Academiae Scientiarum Hungariae* 53 (2002) 195-253.

archaeological investigations addressed the questions connected to urbanization almost exclusively in relation to chartered towns. Numerous pre-urban cores were detected by archaeological methods and the urbanization process was studied in several cases, but such research questions were rarely posed connected to market towns.

The first series of articles on the archaeological research of market towns was published in Hungary as late as 1991,⁴⁵⁴ and regrettably, no such comprehensive volume had been published on the topic since then. Lacking systematic and targeted archaeological research in market towns, only few archaeological data is available about the medieval pattern of streets or plots, the house-types and the public spaces.⁴⁵⁵ However, one of the main consequences of the previous archaeological investigations in Hungary is that the medieval settlement features were explored at every site, which

Miklós Zsuzsa and Márta Vizi, "Angaben zur Siedlungsgeschichte des mittelalterlichen Marktfleckens Ete" in: *Ruralia IV. 8.-13. September 2001 Bad Bederkesa Lower Saxony Germany. The Rural House, from the Migration Period to the Oldest Still Standing Buildings*, edited by Jan Klapste, (Památty archeologické, Supplementum 15, Praga: Brepols, 2002), 291-307; Zsuzsa Miklós and Vizi Márta, "Ete – egy elpusztult középkori mezőváros a Sárközben" *Móra Ferenc Múzeum Évkönyve* 9 (2003): 317-324; Zsuzsa Miklós, "Légifotózási tapasztalatok Decs – Ete középkori mezőváros területén (The Aerial Photography of Decs – Ete, a Medieval Market Town)," in: „*Quasi liber et pictura*” *Tanulmányok Kubinyi András hetvenedik születésnapjára. Studies in Honour of András Kubinyi on his Seventieth Birthday*, edited by Gyöngyi Kovács, Budapest: ELTE Régészettudományi Intézet, 2004, 363-372; Zsuzsa Miklós, "Spätmittelalterliches Eisendepot aus dem mittelalterlichen Marktflecken Decs – Ete" *Acta Archaeologica Academiae Scientiarum Hungariae* 56 (2005) 279-310; Zsuzsa Miklós and Márta Vizi, "Beiträge zum Handwerk des mittelalterlichen Marktfleckens Ete (Ungarn)" in: *Ruralia 6 Arts and Crafts in Medieval Rural Environment. L'artisanat rural dans le monde médiéval. Handwerk im mittelalterlichen ländlichen Raum*, edited by Jan Klapste and Peter Sommer, (Turnhout: Brepols, 2007), 119-134; Zsuzsa Miklós and Márta Vizi, "Ete - (Tolna megye) Egy középkori mezőváros kutatásának közel 200 éve. – Ete, a medieval Market Town in County Tolna. Research over the past two hundred Years", in: *Medinától Etéig. Régészeti tanulmányok Csalog József születésének 100. évfordulójára*, edited by Lívia Bende and Gábor Lőrinczy, (Szentcs: 2009), 293-302; Márta Vizi, "A Decs-Ete területén végzett régészeti kutatások. (Előzetes jelentés) – Vorbericht über die Ausgrabung in Decs-Ete vom Jahre 2009" *Wosinszky Mór Múzeum Évkönyve* 31(2009) 57-73; Márta Vizi, "Terepbejárások Decs-Ete mezőváros (Tolna megye) területén" [Field-survey at the medieval market town Decs-Ete], in: „*Fél évszázad terepen*” *Tanulmánykötet Torma István tiszteletére, 70. születésnapja alkalmából*, edited by Klára Kövári and Miklós Zsuzsa, Budapest: MTA Régészeti Intézete 2011), 87–100. About Muhi. Tamás Pusztai, "Muhi középkori mezőváros régészeti kutatásának topográfiai előkészítéséről. Über die topographische Vorbereitungen des mittelalterlichen Marktes Muhi." *Hermann Ottó Múzeum Évkönyve* 33-34 (1996): 33–59; Tamás Pusztai, "Késő középkori épületek Muhiból - a periféria. Spätmittelalterliche Gebäude aus der zerstörten Marktflecke Muhi - die Peripherie. *Hermann Ottó Múzeum Évkönyve* 35-36 (1997): 5–33; Tamás Pusztai, "Muhi-templomdomb. Középkori falu, mezőváros és út a XI-XVII. századból. Muhi-templomdomb. Medieval village, market town and road from the 11th-17th century", in: *Utak a múltba - Paths into the past. Az M3-as autópálya régészeti leletmentései*, edited by Pál Raczky, Tibor Kovács and Anders Alexandra (Budapest: Magyar Nemzeti Múzeum & Eötvös Loránd Tudományegyetem Régészettudományi Intézet 1997), 144–150; Tamás Pusztai, "A középkori Mohi mezőváros építészeti emlékei (Baudenkmäler des mittelalterlichen Marktfleckens, Mohi)," in: *Népi építészet a Kárpát-medencében a honfoglalástól a 18. századig, Szentendre-Szolnok: Szentendrei Szabadtéri Néprajzi Múzeum & Szolnoki Damjanich Múzeum*, 2001, 331–364; Tamás Pusztai, "Két középkori település szerkezeti rekonstrukciója térinformatikai eszközök segítségével. Strukturelle rekonstruktion zweier mittelalterlicher Siedlungen mit Hilfe der Rauminformatik)" *Móra Ferenc Múzeum Évkönyve* 9 (2003): 407–417. The most recent summary about the excavations at Szer: Katalin Vályi, "Szer monostora és települése az elmúlt 27 év kutatásai alapján" [The monastery and settlement of Szer after 27 years of research], in: *A középkor és a kora újkor régészete Magyarországon*, edited by Elek Benkő and Gyöngyi Kovács, (Budapest: Budapest: MTA Régészeti Intézete, 2010), vol 1, 387–400.

⁴⁵⁴ *Régészet és Várostörténet. Tudományos Konferencia Pécs, 1989. március 16-18. Dunántúli Dolgozatok (C) Történettudományi Sorozat 3. szerk. Dr. Uherkovich Ákos, (Pécs: Janus Pannonius Múzeum, 1991) (hereby referred to as *Régészet és várostörténet*).*

⁴⁵⁵ The most recent summary on the topic was written by Tamás Pusztai. Tamás Pusztai, "Középkori falvak és mezővárosok régészeti kutatása" [Archaeological research of medieval villages and market towns], in: *A középkor és kora újkor régészete Magyarországon* [The Archaeology of the Middle Ages and the Early Modern period in Hungary], eds. Benkő Elek – Kovács Gyöngyi, (Budapest: MTA Régészeti Intézete, 2010), vol. 1, 113-139.

got at least minimal archaeological awareness. Another major finding of the examinations was that in many cases the medieval or early modern archaeological features much more resembled urban use of space and revealed higher quality architectural design in major market towns than it was previously supposed.

The importance of town plans as indicators of urbanity was stated previously by András Kubinyi in the context of Hungary too, who regretted that partly due to the inadequate nature of documentary evidence and partly owing to the scantiness of archaeological investigations he could not insert this attribute among the most important markers of central-urban functions in medieval Hungary. At the same time by presenting some case studies on the development of market towns such as Gyöngyös, Nyírbátor, Miskolc, and Ráckeve, he was able to define some basic morphological variations and characteristics of this settlement type. He argued that there is a basic form of market towns, which derives from a rural, village-style market-street structure, a pattern that developed into a complex arrangement defined by additional cross-streets or parallel streets from the fourteenth century onwards, either as a deliberate foundation act of a feudal lord, or as organically grown additions.

Accordingly, medieval market towns represent a multi-street settlement type, where the market-place, the parish church, the seigniorial residence, the mendicant house(s) and the hospital were the main topographic elements. Besides, typically from the fifteenth century, urban-style architectural structures, for example, stone-built houses appeared in their townscapes. As a result, he also concluded that an urbanized upper-layer of market towns developed by the early sixteenth century.⁴⁵⁶ At Pásztó,⁴⁵⁷ Gyöngyös,⁴⁵⁸ and Vác,⁴⁵⁹ the arrangement of the medieval cellars reflect the dense, narrow plot system as well as the multi-street alignment of the medieval settlements, and suggests that the layout and image of the town resembled chartered cities of the fifteenth century (Fig 149).

Similarly, urban features, or rather an urban use of space was observed at for example in the medieval centers of Körmend,⁴⁶⁰ Szombathely,⁴⁶¹ Szécsény,⁴⁶² Pápa⁴⁶³ in Transdanubia, Szeged⁴⁶⁴

⁴⁵⁶ Kubinyi, *Városfejlődés*; Kubinyi, *Városhálózat a késő középkori Kárpát-medencében*, 17.

⁴⁵⁷ Ilona Valter, "Mezővárosi kutatások újabb eredményei Észak-Magyarországon. Sie neuesten Ergebnisse der Forschung von Marktflecken in Nordungarn" in: *Régészet és várostörténet*, 195-201.

⁴⁵⁸ Ibid.

⁴⁵⁹ Zsuzsa Miklós, "Mittelalterliche Keller in Vác" *Acta Archaeologica Hungariae* 48 (1996): 427-435.

⁴⁶⁰ Csilla Farkas and Ildikó Katalin Pap, "A körmendi főter rekonstrukciójához kapcsolódó megelőző régészeti feltárás eredményei" [Preliminary report on the results of the excavations at the Main Square of Körmend], in: *Testis Temporis – Az idő tanúja 25. Körmend főtere*, edited by Péter, (Körmend: Körmend Város Önkormányzata, 2011), 3–6.

⁴⁶¹ Ildikó Katalin Pap, "Adatok Szombathely középkori településtörténetéhez-a köszegi u. 42. leletei" [data on the medieval history of Szombathely- the finds from 42 Köszegi Street] *Savaria* 27(2002): 149-185; Ildikó Katalin Pap, "Középkori gazdasági épület Szombathely északi határában" [Medieval farm-building in the northern part of Szombathely] *Savaria* 28 (2004): 265-308.

⁴⁶² Tamás Majcher, "A középkori Szécsény. Die mittelalterliche Marktflecken Szécsény", in: *Város és társadalom a XVI-XVIII. században*, edited by Tamás Faragó, (Studia Miskolciensia 1, Miskolc: Miskolci Egyetem, 1994), 19-25; Maxim Mordvin, "Egy 17. századi üveg-leletegyüttes Szécsényből" [Seventeenth century glass-find from Szécsény],

and Debrecen⁴⁶⁵ in the eastern part of the Great Plain (Fig 150). Additional urban architectural features were observed at Segesd for instance, where a fifteenth century two-storey, brick-built Gothic-style noble residence was excavated.⁴⁶⁶ In the south-eastern part of the Great Plain, the surveys of László Balzovicz revealed that the pre-modern street system of Szeged, Debrecen, Gyula, Hódmezővásárhely, and Csomorkány suggest that in this region the local hydrological circumstances, that is, the ground water levels were the most decisive factors in the development of the townscape, which not only affected the physical layout of the streets, and the possible extension space for the sites, but also influenced the possible traffic routes and connections between the settlements (Fig 151).

Based on Ottoman tax rolls and historic maps, more pre-modern features were identified in the contemporary structure of several settlements.⁴⁶⁷

in: *Régről kell kezdenünk...* Studia Archaeologica in honorem Pauli Patay. Régészeti tanulmányok Nógrád megyéből Patay Pál tiszteletére, edited by Szilvia Guba and Károly Tankó, (Szécsény: Gaál István Egyesület, 2010), 271–293; Maxim Mordvin, "Szécsény városának kora újkori palánkerődítése (A szécsényi Pintér-háznál feltárt maradványok alapján)" [The early modern palisade forification of Szécsény (Based on the excavations at Szécsény-Pintér-ház], in: *Várak nyomában. Tanulmányok a 60 éves Feld István tiszteletére*, edited by György Terei and Gyöngyi Kovács, (Budapest: Castrum Bene-Civertan, 2011), 149–159.

⁴⁶³ Gábor Ilon, "Újabb régészeti adatok a középkori Pápa történetéhez" [New archaeological results to the medieval history of Pápa] *Pápai Múzeumi Értesítő* 6 (1996): 297-317; Ilon Gábor, "Pápa alapterülete és területi növekedése az Árpád-kortól a 18. századig" [The topographical growth of Pápa from the Árpadian period till the 18th century] *Pápai Múzeumi Értesítő* 7 (2002): 5-19.

⁴⁶⁴ Orsolya Lajkó, "Előzetes jelentés a Szeged, Somogyi utcai megelőző régészeti feltárásról" [Preliminary report on the excavations at Szeged-Somogyi Street] *Múzeumi Kutatások Csongrád Megyében* (2004): 89-99.

⁴⁶⁵ Research Report by László D. Szabó and Ibolya M. Nepper, in: *Régészeti kutatások Magyarországon 2004* [Archaeological Research in Hungary 2004], edited by Júlia Kisfaludi, (Budapest: Kulturális Örökségvédelmi Hivatal, 2005), 206-207.

⁴⁶⁶ Kálmán, Magyar, "Mezővárosi háztípusok és berendezési tárgyak a középkori Somogy megyében" [Market town building-types and installations from the medieval Somogy County] in: *Régészet és Várostörténet. Tudományos Konferencia, Pécs, 1989. március 16-18.* Dunántúli Dolgozatok (C) edited by Ákos Uherkovich, (Pécs: Janus Pannonius Múzeum, 1991), 218-219.

⁴⁶⁷ László Blazovich, "Dél-Alföldi városok a 14-16. században" [Towns in the southern part of the Great Plain from the fourteenth to the sixteenth centuries], in: *A középkori Dél-Alföld és Szer*, 17-40; Gyula Kocsis, "Településrekonstrukció írott források alapján" [Settlement-reconstruction on the basis of documentary evidence], in: *A hódoltság régészeti kutatása*, edited by Ibolya Gerelyes and Gyöngyi Kovács (Opuscula Hungarica 3, Budapest: Magyar Nemzeti Múzeum, 2002), 185-189.

7. URBAN DEVELOPMENT IN THE GREAT PLAIN REGION: KECSKEMÉT HIERARCHY

7.1 THE PLACE OF KECSKEMÉT IN THE REGIONAL SETTLEMENT

Focusing on the Great Plain Region, where my study area is located, according to András Kubinyi's system, around the turn of the fifteenth century there were three major, primary urban centers, namely Pest, Szeged, and Várad. The second group in the hierarchy included the episcopal seat of Eger, and another significant administrative center, Temesvár. Further on, the third hierarchical category included additional important ecclesiastical and administrative centers such as Bács, Kalocsa and Csanád, and beside them Debrecen, Gyöngyös and Gyula, which can be categorized as "smaller towns and significant market towns with remarkable urban functions." Kecskemét, accompanied by Cegléd, Hatvan, Heves, Pásztó, Túr and Nyírbátor can be grouped into the following, fourth hierarchical subgroup, defined by moderate urban functions. The fifth cluster of settlements, with limited urban functions were Szolnok, Halas, Ráckeve, Szentes, Bátmonostor, Jászberény, while Csongrád, Nagykőrös, Baja Szer, Pótharasz, Vacs were categorized into the sixth subgroup, identified as villages resembling market towns. Finally, the lowest, seventh stratum consists of unimportant oppida and villages with central functions, such as Jakabszállás, or Fajsz.⁴⁶⁸ Concerning the place of Kecskemét, the town might be ranged among the thirty-five most dominant settlements of the Great Plain Region in the late medieval period.

As regards to the closer context of the present study, the Danube-Tisza Interfluvium Region, the two main urban cores were undoubtedly the civitates of Pest and Szeged throughout the medieval and early modern period (Fig 152).⁴⁶⁹ An additional significant line of market towns emerged typically at the borderline of the North Hungarian Mountains and the Great Plain, such as Gyöngyös, Hatvan or Pásztó. In case of these sites, the geographical endowments apparently played a major role as the stimulator of development, as these settlements are located in the contact zones of the hilly-mountainous and the plain regions. The central part of the Great Plain Region had fundamentally different geographical characteristics.

This large, flat area was defined by deposits of sand and loess throughout the pre-modern period, that were cut into by a dense pattern of smaller lakes, rivulets and broad marshy areas, where even minor changes in water level could exert significant changes in a settlement. Hydrology

⁴⁶⁸ Kubinyi *Városfejlődés*, 59-101.

⁴⁶⁹ Although the town Szeged was granted the right of being a civitas in 1498, the settlement had important privileges before that date. László Blazovich, *Szeged rövid története*, (Szeged: Csongrád Megyei Levéltár, 2007), 27-28; about the central functions: Kubinyi, *Városfejlődés*, 85-86, 113-117.

was a key determining factor for site location.⁴⁷⁰ Consequently, those settlements that developed along the permanently accessible routeways, or at junctions of roads, would be more likely to be successful settlement areas.

Having a closer look the on study area between the two dominant urban cores of Szeged and Pest, Kecskemét and Cegléd were the two noteworthy market towns with similar moderate urban functions according to Kubinyi's categories. Their closest neighbours were Kőrös, Szolnok, Csongrád, and Halas, characterized by minor urban functions.⁴⁷¹ The urban development of the area was strongly influenced by the presence of major trading routes and crossroads, such as the east-west and north-south oriented route leading from the main ferry points of the Middle-Tisza Region at Szolnok, Varsány and Csongrád, and towards the customs as well as ferry stations for crossing the Danube at Vác, Pest, Keve. The major northeast-southwest roads oriented from the direction of Hatvan, Gyöngyös, Jászberény towards the major crossing points at Földvár and Tolna on the Danube, and also in the direction of Halas, Kalocsa and Szeged (Fig 153).

In my opinion the similar early development potentials of the settlements in the study region are reflected in the fact that the main trading road between Pest and Szeged was not "fixed" for a long time. In fact there were (at least) two parallel alternatives, one leading on the right bank of the Tisza River reaching Szer, Csongrád, Alpár, Kőrös, and Cegléd, and another one through the Homokhát Region, reaching Sáregyháza, Félegyháza and Kecskemét, which became more dominant from the fifteenth century.⁴⁷²

Beside the geographical location, the ownership of the sites had a remarkable consequence on the later urban development. As it was described in the previous chapter, the documentary sources suggest that from the early Árpadian Period a massive royal estate body existed in the study area. After the Mongol Invasion this system considerably changed: sizeable parts of the village lands deserted in the mid-thirteenth century were donated or let to Cuman kindreds. It is likely that another significant part of deserted or not viable royal properties became reorganized and attached to surviving and/or developing settlements, local market centers such as the later Kecskemét, or Cegléd. The fact that clusters of deserted early villages are usually detected around and on the site of the later urban cores can be regarded as an indicator for this rearrangement. Regrettably, as it was described in the previous chapter on the development of the villages, lacking detailed written

⁴⁷⁰ Blazovich, *Dél-alföldi városok a 14-16. században*.

⁴⁷¹ The distance between Kecskemét and Cegléd is around 33 km, which makes 2 *rastas*, while Kőrös is approximately halfway between them, which is exactly the average distance of local markets in the late medieval period. Kubinyi 2000, 35-36.

⁴⁷² About the development of the road pattern in general: András Pálóczi-Horváth, "A kun betelepülés Kiskunfélegyháza környékén és a város korai története" [The settlement of the Cumans and the early history of the town], in: *Múzeumi Kutatások Bács-Kiskun Megyében 1995-1996*, ed. Ilon Kőrösi, (Kecskemét: Bács-Kiskun Megyei Önkormányzat Múzeumi Szervezete, 1997), 25-26., László Blazovich, "Az Alföld 14-16. századi úthálózatának vázlata" [The draft of the traffic routes in the Great Plain Region between the 14th to the 16th centuries] *Tanulmányok Csongrád megye történetéből* 26 (1998) 51-61.

evidences and systematic archaeological data, it cannot be decided whether all these settlements were destroyed by the Mongols in 1241-1242 and these lands were attached to other settlements as physically destroyed and depopulated territories, or these sites (or at least some of them) survived the Mongol Invasion, and their disappearance can be connected to some conscious reorganization process in the late thirteenth and fourteenth centuries. Eventually, by the mid-fourteenth century, an apparent nucleation process can be observed in the area, resulting in the emergence of few local market centers from the larger body of villages, such as Kecskemét and Cegléd.

7.2 THE DEVELOPMENT OF KECSKEMÉT: OWNERSHIP AND LEGAL STATUS

Contemporary documents allow inferring that the core territories of the later town were most probably part of the royal estate system in the Árpáadian Period. The first documentary reference to Kecskemét comes from 1353, when *possessio Ketskemet* is mentioned as belonging to the royal estates.⁴⁷³ In 1415, the town appears as a settlement owned by the queen,⁴⁷⁴ who possessed it until the 1430s.⁴⁷⁵ The rapid urban development is well attested in the documentary sources; the settlement is mentioned as *oppidum* in 1368.⁴⁷⁶ In 1415 and in 1424, the settlement is exceptionally referred to as *civitas*,⁴⁷⁷ while from 1423 onwards steadily referred to as an *oppidum*.

Until the mid-fourteenth century Kecskemét and the emerging pre-urban cores in the area such as Cegléd and Halas had presumably the same potential to develop into an important local centre. Most probably the royal patronage influenced their accelerated their development. The situation changed from the late fourteenth century, as Cegléd, at that time owned by the queen, was donated to the Poor Clares of Óbuda (1368),⁴⁷⁸ and Kőrös was in private ownership from the mid-thirteenth century onwards at latest.⁴⁷⁹ These processes presumably facilitated new short-term prospects for Kecskemét, which remained part of the royal estates for a few more decades.

The town was first pawned to the Káthai family in 1439,⁴⁸⁰ later donated to various noble families, and remained private property for the next four centuries. The owners changed relatively frequently in the fifteenth century. In 1445 Mihály Csekekátai owned the town, while only seven

⁴⁷³ Hornyik, *Kecskemét város*, vol 1, 197-198.

⁴⁷⁴ Hornyik, *Kecskemét város*, vol 1, 199-201.

⁴⁷⁵ Kenyeres, *Uradalmak és végvárok*, 62.

⁴⁷⁶ Bártfai-Szabó, *Pest megye*, 84-86.

⁴⁷⁷ Gyárfás, *A jász-kúnok*, 580. "*oppidi seu civitatis Kechkemeth cum tributo in eadem habito, ac unacum Comanis Reginalibus, prope eandem Kechkemeth*"

⁴⁷⁸ Bártfai-Szabó, *Pest megye*, 84-85.

⁴⁷⁹ In 1266, King Béla IV approves that *Nana*, son of *Pousa* from the *Kalan* kindred donates his possessions, among them *Kalanguerusy* to the nuns and church dedicated to the Holy Virgin at the *Insula Leporum* (*concessit, contulit, tradidit et donavit ecclesie Beatissime Virginis de Insula*) in: *Budapest történetének okleveles emlékei. Monumenta diplomatica civitatis Budapest*, collected by Dezső Csányi, edited by Albert Gárdonyi, Budapest, 1936, 87-90.

⁴⁸⁰ 1439: Hornyik *Kecskemét város*, vol. 1, 207-208.

years later, in 1452, János Péro is recorded as the landowner.⁴⁸¹ In 1456 Erzsébet Szilágyi, László Hunyadi and Mátyás Hunyadi are cited as possessors,⁴⁸² and in 1458 Mátyás, already as king donated the settlement to the members of the Lábathlan family.⁴⁸³ In 1458 the widow and son of János Péro tried to regain the possession of the town.⁴⁸⁴ Later, between 1508 and 1558 the Patochy family is the owner of the settlement's larger part. Beside them the Vízkelety family, then János Liszti and Pál Zarkándi are noted among the landowners.⁴⁸⁵ Through the descendants of Zárkándi, the Wesselényi family possessed the half of the town until the 1660s.⁴⁸⁶ In 1668, Mária Széchy, the widow of Palatinus Ferenc Wesselényi pawned her part to István Koháry, who, by 1702 became the only landowner of the town until 1834, when the settlement redeemed its liberty from the Koháry family (Fig 154).⁴⁸⁷

In the sixteenth and seventeenth century, Ottoman landowners have to be also mentioned. The names of Ottoman overlords are registered from the earliest defter rolls. According to these lists, in 1546 Mehmed Pasha, Beylerbey of Buda is the beneficiary of Kecskemét. In 1559 and in 1562 Rustem Pasha, Beylerbey of Buda is referred to, and from 1580 till the 1680s the settlement is listed among the private has-properties of the Sultan himself,⁴⁸⁸

7.3 THE TOWNSCAPE OF KECSKEMÉT: GENERAL CHARACTERISTICS AND CARTOGRAPHIC REPRESENTATIONS

One essential method to reveal the emergence and development of urban settlements in historical research is to study and analyze town plans as records that offer various morphological evidences in this context. The town plan may transmit crucial information particularly in periods when documentary record is sparse, thus town plan analysis may offer possibilities to demonstrate distinct growth phases. The analysis of town plans and the identification of street- as well as plot-patterns can be used to create data on the pre-modern landscape of the settlements in most of Europe.⁴⁸⁹ Recently, Christopher Dyer argued, when dealing with the small towns of medieval

⁴⁸¹ 1445: Bártfai Szabó, *Pest megyei történetének okleveles emlékei*, 185-186.; Budapest, Magyar Országos Levéltár [Hungarian National Archives], Df. 97.365

⁴⁸² Budapest, Magyar Országos Levéltár [Hungarian National Archives], Df. 97.635

⁴⁸³ Hornyik, *Kecskemét város*, vol. 1, 209.

⁴⁸⁴ Hornyik, *Kecskemét város*, vol. 1, 216-218.

⁴⁸⁵ Hornyik, *Kecskemét város*, vol. 1, 223.

⁴⁸⁶ Hornyik, *Kecskemét város*, vol. 3, 3-70.

⁴⁸⁷ *Kecskemét története*, 178-179.

⁴⁸⁸ Káldy-Nagy, *A budai szandzsák 1559*, 174-175.

⁴⁸⁹ There are many papers on the use of cartographic evidence in urban history, here I would like to refer to some major scholars of this field as M.R. G. Conzen, G. Beresford, and W.G. Hoskins. A recent comprehensive study on the literature and the development of methodology: Keith Lilley - Chris Lloyd - Steve Trick, "Mapping Medieval Townscapes: GIS Application in Landscape History and Settlement Study", in: *Medieval Landscapes: Landscape History after Hoskins*, edited by Mark Gardiner and Stephen Rippon, (2 vols, Oxford: Oxbow Books, 2007), vol. 2, 27-43.

England, that for defining the differences between large villages and urban settlements, one of the most important characteristics in terms of the material culture is “to recognize the distinctively urban use of space, the high densities of buildings, houses closely packed along street frontages, narrow plots behind the houses; peculiar street patterns including the accommodation of market places in front of church doors, at the convergence of streets, or deliberately widened main streets.” Moreover, he developed a set of criteria to investigate urban hierarchy as reflected mainly by townscape evidence, which gives further directions to describe urban development from an archaeological perspective.⁴⁹⁰

As regards to the Danube-Tisza Interfluvium Region and more closely Kecskemét, first it has to be emphasized again, that this part of the Carpathian Basin has never been occupied by the Roman empire, thus no significant Roman settlements can be found here. This means that not only at the very site of Kecskemét, but in the whole region no urban tradition existed before the late medieval period, consequently, there were no earlier built features or elements that affected the setting and the morphology of the later town.⁴⁹¹ Yet, apparently, the geographical-geological circumstances had significant effects on the development of the townscape. The local natural environment offered a relatively limited range of building materials, which influenced architectural methods and traditions. In practical terms this means that daubed clay, brick, and wood were the fundamental constituents of the built environment. Stone was rarely used, in most cases only for church building even in the nineteenth century.

The pre-modern architectural heritage of Kecskemét mainly disappeared during the centuries, and nowadays, the townscape is dominated by nineteenth-twentieth-century designs. As far as only limited documentary evidence and archaeological information is available on the townscape of the historic settlement, the extension and the morphological character of the pre-modern settlement can only be hypothetically drafted. However, even the very fragmented information allows inferring some consequences on the development of the townscape. Especially eighteenth-nineteenth century cartographic resources have a significant role in that, which can be used comparative data to pre-eighteenth century documentary sources, namely, the sixteenth-seventeenth-century data from the Ottoman tax rolls, the town protocols and eighteenth century narrative descriptions, such as the work of Matthias Bel.

⁴⁹⁰ Christopher Dyer, “The Archaeology of Medieval Small Towns” *Medieval Archaeology* 47(2002): 98.

⁴⁹¹ Although the pre-medieval (pre-Conquest) period does not belong strictly to the topic of the present thesis, it has to be referred to at this point that according to the recent archaeological discussions, the territory and the closer area around Kecskemét has been populated from the Neolithic Period onwards. Besides the traces from various phases of Prehistoric cultures, dense settlement traces were excavated from the Sarmatian Period (first to fourth century AD), and from the Migration Period; several Avar graves and cemeteries were discovered in the study area including the territory of the later town. The surrounding area was surely occupied by the conquering Hungarians in the late ninth century, as it is reflected by the numerous cemeteries of the commoners and the solitary graves of the elite. The most recent summary was published about the prehistory of the town in *Kecskemét története*.

The cartographic representations of the town constitute the most important group of sources, it is essential to describe the available material. The mapping of the town can be regarded as average concerning both the number and the composition of representations. The earliest detailed drawings originate from the mid-eighteenth century. The maps can be divided into two major groups: beside the more general series of the Ordnance Surveys and various county-scale representations, numerous more detailed town plans are available. Unfortunately, no earlier paintings or town views are available about Kecskemét than the 1830s.

The earliest schematic mapping of the town comes from 1528, from the *Tabula Hungariae* compiled by Lazarus,⁴⁹² the settlement is also shown on the county map of Lazius from 1556,⁴⁹³ and on the map by John Speed from 1626,⁴⁹⁴ as well as on the *Atlas Maior* by Blaeu from 1664.⁴⁹⁵ Among more detailed representations, first the county map by Sámuel Mikoviny (Samuel Mikoviny), has to be mentioned, who created the earliest representation of the Cuman and Jassian territories and Pest County from 1732 and 1737 (Fig 155).⁴⁹⁶ These representations provide a rather schematic image of the settlement, with a distinct inner centre and four major roads leading towards the directions of the compass. The town is depicted without any defensive structures, neither the water ditch nor the town gates are shown; the contours of the inhabited territory are vague. Two churches, most likely the Saint Nicholas church and the Protestant (Calvinist) church is depicted. The characteristic belt of vineyards on the northern territories is clearly identifiable, and interestingly, there is an extensive west-east oriented wet area, south of the town, maybe the remains of a once watercourse and a lake.

The earliest map of Pest County was drawn by an unknown author around 1740, which also depicts the settlement in a sketchy way; however, the plan gives a quite detailed overview on the land management of the surrounding area (Fig 156).⁴⁹⁷ There are two additional maps by Antonius Balla,

⁴⁹² *Tabula Hungariae ad quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalii...* (OSZK Apponyi gyűjtemény M 136)

⁴⁹³ ELTE Térképtudományi Tanszék. Published in: Árpád Pap-Váry and Pál Henkó, *Magyarország régi térképeken* [Hungary on historic maps], (Budapest: Gondolat-Officina Nova, 1990), 58.

⁴⁹⁴ *The Mape of Hungari newly augmented by John Speed* (OSZK Térképtár, TM 53 65.)

⁴⁹⁵ *Regni Hungariae nova et exactissima Delineatio*. (MOL S 16.361.)

⁴⁹⁶ *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur* 1732, and *Mappa Comitatus Pesthiensis*, 1737. Both maps are catalogued in the HM Hadtörténeti Intézet és Múzeum [Institute and Museum for Military History], Budapest The online resource for the maps can be found at:

<http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jasz4.htm>

<http://mek-oszk.uz.ua/06400/06422/html/top_jaszunksag/jaszunksag.html>

⁴⁹⁷ *Mappa Unitarum Comitatum Pestiensis Pilisiensis et Solthensis, Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, Országos Széchenyi Könyvtár [National Hungarian Library], Budapest, TK 1086

one from 1789, representing the postal traffic roads between Kecskemét and Kiskunfélegyháza,⁴⁹⁸ and a county map from 1793,⁴⁹⁹ which contain extremely useful details of the town (Figs 157-158).

There are additional county maps from 1811⁵⁰⁰ and 1834,⁵⁰¹ all with more or less detailed, but rather rough image of Kecskemét (Fig 159). The depiction of the First Ordnance Survey from 1783 is a transition between general symbols of the county maps and the detailed surveys, outlining the main structural elements such as the town ditch, the major streets as well as the churches (Fig 160).⁵⁰²

There are additional series of general town plans⁵⁰³ and specific maps,⁵⁰⁴ including a series of maps of the Vásártér ('Fair ground') of the town⁵⁰⁵ from the nineteenth and early twentieth century, and the detailed representations of the Second and the Third Ordnance Survey from the 1860s and the 1880s (Figs 190-192).⁵⁰⁶

⁴⁹⁸ *Accurata delineatio situm seu cubitum viae postalis, ac una commercialis quae inter oppida Kecskeméth et Félegyháza intercedit una cum punctis illis, in quibus in quaestione existentia loca physica nimirum verum situantur repraesentans*, by Antonius Balla, 1789, Országos Széchenyi Könyvtár [National Hungarian Library], Budapest, S 12 Div XVIII No 0023.

⁴⁹⁹ *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, Országos Széchenyi Könyvtár [National Hungarian Library], Budapest, S12 Div 10 No 76:1-2.

⁵⁰⁰ *Pest, Pilis és Solt törvényesen egyesült vármegyék, a Jászság, a Nagy és a Kis Kunság*, by Antonius Balla, 1811, Országos Széchenyi Könyvtár [National Hungarian Library], Budapest, published on DVD-ROM (Budapest, Arcanum e-térképtár, 2007)

⁵⁰¹ *Pest, Pilis, Solt törvényesen egyesült vármegyék és a Kis-Kunság Földképe*, by Örkényi Ferenczy József, 1834, Országos Széchenyi Könyvtár [National Hungarian Library], Budapest, published on DVD-ROM (Budapest, Arcanum e-térképtár, 2007)

⁵⁰² *Originalaufnahme von Ungarn aufgenommen in den Jahren 1782-1785. Theil des Pester Comitats und Klein Kumanien*. [The First Ordnance Survey of Hungary] (cartographer unknown), 1782-1785, Map Library of the Institute of Military History, Budapest, XVI.28.

⁵⁰³ For instance: *Kecskemét szabad királyi város területének átnézeti térképe* [The map of free royal town Kecskemét], by Gusztáv Rihocsek, 1885, Municipal Archives of Kecskemét, XV 1/a 1 483; or *Kecskemét t.h. város külső területének térképe* [The map of Kecskemét with its boundaries], by Tibor Kerekes, 1919, Municipal Archives of Kecskemét.

⁵⁰⁴ *Kecskemét 3. tizedének felmérése*, cartographer unknown, around 1790 körül, Municipal Archives of Kecskemét, XV. 1/a 0001; *Szabados Kecskemét Várossának az 1819dik esztendőben Április 2dik napján történt gyulladás alkalmatosságával meg égett részét előterjesztő eredeti Mappa*, by Pál Batthány, 1819, Municipal Archives of Kecskemét, XV. 1/a 41Kecskemét 355; *Kecskemét Város kebelében létező szárazmalmok, összesen 92* by György Horváth, 1857, Municipal Archives of Kecskemét, XV. 1/a Kecskemét 435-436.

⁵⁰⁵ *Planum hoc fine regulationis nundiarum in Privilegiato Oppido Ketskemét instituendo, elaboratum ets. Mense Aprilis Anno 1792*, cartographer unknown, 1792, Municipal Archives of Kecskemét, XV. 1/a Kecskemét 353; *Vásárállást ábrázoló 1800 körül készült térkép*, cartographer unknown, c. 1800, Municipal Archives of Kecskemét, XV. 1/a 5. téka 136/a; *Vásárállás, Serház, Kecskeházi Fogadó és Kápolna felmérése*, by Imre Szűcs, c. 1806, Municipal Archives of Kecskemét, XV. 16a 53. téka 136.

⁵⁰⁶ *Franzischeische Landesaufnahme* [The Second Ordnance Survey of Hungary] Major Franz Bitter von Littrow, 1860-1861, Map Library of the Institute of Military History, XXXV. 58; *Magyarország harmadik katonai felmérése* [The Third Ordnance Survey of Hungary], (cartographer unknown), 1872-1884, Map Library of the Institute of Military History. 5363/2.

7.4 THE ELEMENTS OF THE TOWN PLAN

In the following paragraph, I will discuss and analyze the various components of the town plan. I will discuss those basic elements, which are likely of pre-modern origin, such as streets, churches, market places, or defensive structures which can be interpreted as the constant framework, a kind of ‘backbone’ for the settlement. The description will comprise two parts: partly, I will summarize the main historic data on the element, and there will be a summary on the feature as a part of the townscape; how it contributed to the urban development and central functions of Kecskemét. Since in special cases it is difficult to explain or interpret the changes in the ground plan without the mentioning of some modern developments in the townscape, I will refer to modern data.

7.4.1 THE STREETS

Streets, being the place of work, exchange, celebrations, protest, trade and transport are noted among the most important shared spaces and communal areas in an urban environment. Streets are often described as the lines on a city's face, as they preserve the history, but at the same time contribute to the development of the settlements.⁵⁰⁷

In the context of Kecskemét, several street names and additional place names, such as the names of the town gates are mentioned in documentary sources (in town records and defter rolls) as early as the sixteenth century. The earliest comprehensive register of street names was assembled as late as 1850,⁵⁰⁸ which corresponds to the general topographical survey of the town in 1869,⁵⁰⁹ and another general survey map of the town from 1860,⁵¹⁰ both presenting designations. The place names can be followed further on modern maps, such as the town maps from 1879, 1905, and these data can be contrasted with the recent street names of the town.

In the following table are those street names mentioned in the documentary sources before 1800. I supplemented this data with the date of when and how the name appears, either in documentary sources or as place names on maps, and, finally, I added the most recent (in year 2007) name of the street. The data indicates that several “historic” place names are still being used today, and in this respect an obvious continuity can be demonstrated.

⁵⁰⁷ I found this definition at <<http://www.mheu.org/en/street/>>, the interactive exhibition on the history of streets by the Musée Historique Environnement Urbain (as accessed on 24th April, 2012)

⁵⁰⁸ The register of streets is preserved in the Municipal Archives of Kecskemét, (author is unknown), BKMÖL IV. 1504/b. See: Erzsébet Erdélyi, *A kecskeméti utcanevek története* [The history of the street names at Kecskemét], Kecskeméti Füzetek 14. (Kecskemét: Kecskeméti Lapok, 2004).

⁵⁰⁹ *Másolati térképe Kecskemét szabad királyi városa belső területének*, by Károly Szilády, 1869, Municipal Archives of Kecskemét, XV 1/a 1

⁵¹⁰ *Kecskemét kövezeti vázlat. Készítette a régi nagy térképről Horváth Farkas városi főmérnök*, by Farkas Horváth, 1860, Municipal Archives of Kecskemét, XV 1/a 1. 437.

Name of the street	References to streets
Gyümölcs utca [Fruit Street]	Gyümölcs utca 1562 EKF Gyümölcs utca 1800k Kápolna utca 1850 Kápolna utca 1905 Kápolna utca 1879 Kápolna utca 1905 Kápolna utca 1907 Kápolna utca 2007
Kozma utca [Kozma Street]	Kozma utca mahalle 1562 (location is unknown)
Körös utca [Körös Street]	Körös utca 1591-1602 (MJ I 54), First Ordnance Survey, 1783 Körösi Nagy utca 1850, Nagykörösi utca 1879 Nagykörösi utca 1907 Nagykörösi utca 2007
Szenmária utca [Virgin Mary Street]	Szenmária utca 1562 First Ordnance Survey, 1783 Mária utca 1850 Mária utca 1879 Mária utca 1905 Mária utca 1907 Mária utca 2007
Oskola utca [School Street]	Oskola utca mahalle 1559, 1562 location is unknown, maybe identical with the Régi Iskola utca [Old School Street] mentioned in 1850, but not represented in 1869.
Pálkai utca [Pálkai Street]	Pálkai utca 1591-1602 (MJ I 54), First Ordnance Survey, 1783 Halasi utca 1819 Halasi nagy utca 1850 Halasi nagy utca 1879 Halasi nagy utca 1905 Batthyány utca 1907

Name of the street	References to streets
	Batthyány utca 2007
Szentlőrinci utca [Szentlőrinci Street]	Szent Lőrinci utca 1591-1602 (MJ I 54) First Ordnance Survey, 1783 Csongrádi nagy utca 1850 Csongrádi nagy utca 1879 Csongrádi nagy utca 1905 Csongrádi utca 1907 Csongrádi utca 2007
Nagy utca/Vásári nagy utca [Main street/Main Market Street]	Nagy utca/Vásári Nagy utca 1591-1602 (MJ I 54), First Ordnance Survey, 1783 Vásári utca 1819 Vásári nagy utca 1850 Vásári nagy utca 1879 Vásári nagy utca 1905 Gáspár András utca+ Vásári utca 1907 Petőfi Sándor utca 2007
Varga utca [Shoe-maker Street]	1562 (Káldy-Nagy, 1977) (location unknown)
Új utca [New Street]	Uj utca mahalle 1559 (location unknown)
Kun utca [Cuman Street]	Kun utca mahalle 1562 (location is unknown)
Lomlik utca [Lomlik Street]	Lomlik utca mahalle 1562 (location unknown)
Homoki utca [Sandy Street]	Homoki utca 1747 (MJ II 7), First Ordnance Survey, 1783 Homok utca 1819 Homoki utca 1850 Homoki utca 1879 Homoki utca 1905 Munkácsy utca 1907 Munkácsy utca 2007
Szolnoki utca [Szolnoki street]	First Ordnance Survey, 1783 1850 Szolnoki utca 1879 Szolnoki utca 1905

Name of the street	References to streets
	Bem utca 1907 Bem utca 2007
Budai Nagy utca [Main Budai street]	First Ordnance Survey, 1783 1850 Budai nagy utca és Jókai utca 1879 Budai Nagy utca és Jókai utca 1905 Jókai utca és Arany János utca 1907 Jókai utca és Arany János utca 2007

Table 7 Pre-modern streets in Kecskemét

The data on the street pattern suggest that in the mid-sixteenth century the town had at least ten to twelve streets, and it seems by that time the settlement had a composite, multi-street plan. The chronological relations between the two medieval parishes, the St Nicholas church and the Holy Virgin church are unknown, and it cannot be confirmed, but surmised that the settlement was structured along streets at latest by the second half of the fifteenth century. Most probably one of the earliest streets formed along the line of the later Gyümölcs/Kápolna (“Fruit”/”Chapel”) Street between the two churches (Fig 161).

The later topographic maps propose that Kecskemét’s ground plan represents a radial arrangement, where all the main streets start from the central inner market place of the town. The names of the four main channels of traffic, documented as early as the 1590s, clearly indicate the principal commercial connections of the town and the system of regional traffic routes: Kőrösi street (leading towards Nagykőrös and Cegléd) (Fig 162), Szentlőrinci street (leading in the direction of Szentlőrinc village and Csongrád) (Fig 163) and Pálkai street (leading southwards through Pálka village and Halas) (Fig 164). There is, in fact one exception to that rule, the Vásári Nagy utca (Main Street or Main Market Street) (Fig 165), which connected the main market place around Saint Nicholas parish church and the site of the annual fairs south of the inner city territories, and was most probably also among the most important vehicular and economic axis of the town. Additional lists of street names were documented in the Ottoman defter rolls in 1559 and 1562, namely the Nagy utca (Main Street), Szenmária utca (Virgin Mary Street) (Figs 166-167), Új utca (New Street), Kun utca (Cuman Street), Varga utca (Shoe-maker Street), Szentlőrinc utca (Szentlőrinc Street), Oskola utca (School Street), Gyümölcs utca (Fruit Street).⁵¹¹

It is important to note that the two other streets which were noted among the most important traffic routes, namely the Budai Nagy utca (Main Budai street leading towards Buda and Pest) (Fig

⁵¹¹ Káldy-Nagy, *A budai szandzsák 1559. évi összeírása*, 173-178.

168) and the Szolnoki utca (Szolnoki Street, leading towards Szolnok) (Fig 169), are missing from the early documents, and they are referred to only quite late, from the nineteenth century onwards. This may either mean that the streets were known by other names in the earlier periods (New street? Cuman Street?), or these were later, eighteenth century developments. Connected to this, another crucial morphological aspect of the late medieval-early modern town is the real extension of the late medieval settlement, which was surely smaller than it is shown on late eighteenth century depictions. In the context of the area around the Budai Main Street and the Szolnoki Street, it is striking that the clusters of parallel, more regular, rectilinear streets in the north-eastern part of the town are remarkably different from the dense, small blocks of houses and the irregular, twisting street pattern around the two medieval parish churches (Fig 170).

Besides, it cannot be a mere coincidence that there are small “squares”, or rather convergences of four-five streets along all major streets, such as Vásári Main street, Pálkai street, Kőrösi street or Szentlőrinci street, all of medieval origin. In my opinion, the radial structure of the town suggests that it developed along the major traffic routes, and that these foci might refer back to an earlier stage of town development, namely to a former town boundary, or to sites of earlier town entrances. Yet it is not possible to define the date or phases of this expansion in the present stage of research (Fig 171).⁵¹²

A major rearrangement in the street system took place from the 1870s, partly connected to an “opening up” of the area around Saint Nicholas parish church by demolishing several clusters of houses and creating a larger, central public space. At the same time a wide boulevard was laid out around the city, following the latest route of the water-filled ditch.

The survey presented here confirms the assumption that the main structure of streets, apart from some new designs,⁵¹³ preserved its early-modern texture until today (Fig 172).

⁵¹² Perhaps the in-depth survey of the seventeenth-eighteenth century unpublished documentary source (for instance the data on taxation) may give further information in this respect.

⁵¹³ For example the new, artificially opened new boulevard on the approximate line of the former Temető Street, the Rákóczi Boulevard, leading to the railway station. The building of the railway instigated additional changes in the second half of the nineteenth century, but as the railway track was planned outside of the historical city center, the railway itself did not directly influence the historic street plan.

7.4.2 TOWN DEFENCES

Privileged towns are often distinguished from market towns by the assumption that theoretically market towns were not enclosed by town walls. However, when speaking about medieval defensive structures, a whole variety of such constructions can be listed, from stone walls to ditches or simple wooden fences in the context of market towns as well. It seems that the most common structures were ditches, usually filled with water, with an earthen embankment on the inner side, often strengthened with thorny bushes and trees, which was often complemented with a solid wooden palisade, or simple fences.⁵¹⁴ The access was regulated through bridges and town gates made of solid wood. In fact, the question of town defences in non-privileged market towns is an unexplored and underrepresented subject in Hungarian historiography. Apart from a recent PhD Dissertation on town defences written by an architect,⁵¹⁵ the history and the significance of defensive elements at market towns has not been raised, moreover, this feature is also missing from the group of urban criteria in Kubinyi's system. Yet, this element was not only an impressive constituent of the landscape, but had a substantial role in the development of the communities. Besides the purely defensive function, the physical separation of the inner city areas from the outside world was meant to control access to markets and the collection of tolls. The construction, maintenance and the operation of the defensive system in both privileged cities and smaller market towns, was a collective public responsibility of the community, but the strict town regulations also assigned duties to individual citizens.⁵¹⁶ Thus, the presence of defensive structures in the context of medieval settlements may reveal/denote further important urban characteristics, namely the ability of a community to organize and maintain its defence, an activity that required a sophisticated and high level of self-developed organization in the settlements. Indeed, many of the market towns, defined in Kubinyi's centrality system as smaller towns and significant market towns with remarkable urban functions, such as Pápa,⁵¹⁷ Szolnok,⁵¹⁸ Hatvan,⁵¹⁹ Gyöngyös,⁵²⁰ Miskolc,⁵²¹ Debrecen,⁵²² Cegléd⁵²³ and Kecskemét were surrounded by defensive structures; typically, they were encircled

⁵¹⁴ For example, such defensive elements were recorded in the Great Plain Region at Debrecen, Szolnok, Hatvan, Cegléd, Nagykőrös, Csongrád.

⁵¹⁵ Rabb, Péter, *Városi védművek a középkori Magyarországon* [Town Defenses in Medieval Hungary], PhD Dissertation, Budapesti Műszaki Egyetem, Manuscript, 2006, as accessed on 16 March 2012, at: <http://www.omikk.bme.hu/collections/phd/Epiteszmernoki_Kar/2006/Rabb_Peter/tezis_hun.pdf>

⁵¹⁶ Rabb, *Városi védművek*, 25

⁵¹⁷ András Kubinyi, "A középkori Pápa" [The medieval Pápa], in: *Tanulmányok Pápa történetéből, a kezdetektől 1970-ig*, edited by András Kubinyi, (Pápa: Jókai Mór Városi Könyvtár, 1994), 45-76.

⁵¹⁸ Rabb, *Városi védművek*, 155-156.

⁵¹⁹ Rabb, *Városi védművek*, 88.

⁵²⁰ Kubinyi, *Városfejlődés*, 122-123.

⁵²¹ Kubinyi, *Városfejlődés*, 131-132.

⁵²² István Balogh, *A civisek világa: Debrecen néprajza* [The world of *civis* people: the ethnography of Debrecen], (Budapest: Gondolat, 1973), 53.

⁵²³ Rabb, *Városi védművek*, 65-68.

by a wooden palisade and an earthen embankment, and the structure was often combined with water-filled ditches.

Kecskemét was most probably encircled by a water-filled ditch and a wooden palisade with gates, which regulated the traffic from at least the second half of the sixteenth century; however, there are detailed documentary references to the structure and operation of this system only from the later period of its existence, in the seventeenth-eighteenth centuries.⁵²⁴ The earliest indirect reference the town's defences dates back to the 1520s, when Kemalpashazade, a Turkish historian listed Kecskemét among the significant and fortified settlements of the region.⁵²⁵ The first direct written document to this scheme was recorded in 1659,⁵²⁶ and the first regulations date back to 1697,⁵²⁷ when the magistrates prohibited all citizens from carrying or depositing animal manure, or carcasses into the ditch. The town defences are also mentioned in the descriptive work of Matthias Bel from 1737, who wrote that the whole town had been encircled by a shallow ditch, but hardly any water was to be found in it. In the first half of the eighteenth century, the slanting side of the embankment was plastered with manure, and was strengthened with thorny bushes. In 1751, the magistrates forbade citizens from filling up the water ditches;⁵²⁸ while in 1768, trees were planted on top of the earthen bank to reinforce its structure.⁵²⁹ Not much later, in 1772, all gaps on the town-fence were repaired.⁵³⁰ The wooden palisade and the town ditch are mentioned in the memories of a traveller called Domenico Sestini from 1780.⁵³¹ The single surviving representation of the town ditch also dates back to this period, namely from the date of the First Ordnance Survey in 1783 (Fig 160). The town ditch, and the maintenance of the structure is present in the town protocols as late as 1849, when the upkeep of the water-filled ditch was the duty of those citizens whose plots lay beside the trench. After the rollout of the town ditch its course had become an important channel of traffic (Fig 173)

In addition to the ditch and the palisade, the town gates were important and integral parts of the construction.⁵³² The exact number, location and date of the earliest gates and the earliest line of the town ditch are unknown, but it can be hypothetized that the line of the ditch changed in line with the extension of the occupied area. There were six major gates in the eighteenth century, namely the

⁵²⁴ Unfortunately, no archaeological research had aimed at locating or studying the structure.

⁵²⁵ *Török Történetírók* [Turkish Historians], translated and edited József Thúry, (3 vols, Budapest: Magyar Tudományos Akadémia), vol. 1, 1893, 270.

⁵²⁶ MJ I, 67.

⁵²⁷ MJ I, 170.

⁵²⁸ *Szabályrendeletek*, 61.

⁵²⁹ *Szabályrendeletek*, 83.

⁵³⁰ *Szabályrendeletek*, 83.

⁵³¹ Katalin G. Györffy, "Kultúra és életforma a XVIII. századi Magyarországon. (Idegen utazók megfigyelései)" [Culture and life-style in 18th century Hungary: the accounts of foreign travellers], *Művészettörténeti Füzetek* 20 (1991): 59.

⁵³² Unfortunately no elements of the ditch or the town gates survived, and until now no archaeological research has attempted finding these elements.

Budai Gate (Fig 174), the Csongrádi Gate, the Kőrösi Gate, the Szolnoki Gate and the Vásári or Major Gate along the major streets, which presented the main control of traffic, while there were additional minor gates, such as the Homoki Gate (Fig 175), the Temető Gate and the Vágó Gate, primarily giving access to locals to the outer vineyards and gardens around the city.

There are relatively detailed sources to reconstruct how the defensive system was maintained and secured from the late seventeenth century. As it was delineated on the administrative bodies of Kecskemét, the territory of the city was divided into pars, which were further cut up to smaller pieces called “tenths” (tized in Hungarian) as early as the sixteenth century, led by⁵³³ corporal judges (tizedbíró or tizedes in Hungarian) corporals (tizedes in Hungarian) and lieutenants (hadnagy in Hungarian).⁵³⁴ The traffic through the town gates was controlled by the gatekeepers, who prohibited non-authorized people (those not having a pass from the Main Judge of the town) from entering the premises, besides, reported any other unusual traffic of strangers. The gate keepers were paid employees of the town, who were allowed to live in the gatehouses near the gates.⁵³⁵

The regular monitoring of the town ditch as well as the palisade was among the duties of these officials. Further on, they reported their findings to the town magistrates, who themselves had to walk along the ditch and check the structure at least four times a year.⁵³⁶ The magistrates organized the possible repair or maintenance works and ordered citizens to participate in maintenance works (e.g. provide carters to carry building material or do the physical work), which were again controlled by the corporals and lieutenants.⁵³⁷ It was forbidden to open new exits on the fence/palisade, and from the eighteenth century it was more the duty of the tenants neighboring the structure to look after the trees planted on top of the ditch bank.⁵³⁸

7.4.3 ECCLESIASTIC BUILDINGS

Churches had special importance in medieval communities as central areas of public life, and in addition to their religious use, many other functions, such as business, storage, and public

⁵³³ This scheme of division is well known from other privileged towns (such as Cluj Napoca, or Levoče) the and market towns (such as Cegléd) as well; in many towns the larger administrative units were called ‘viertel’ (*fertály* in Hungarian), and these were partitioned into ‘tenth’, and there are abundant references on the special administrative heads (‘viertelmeister’, ‘*fertálykaiány*’), comparable to the system that developed at Kecskemét. See: Lajos Asztalos, *Kolozsvár: helynév- és településtörténeti adattár* [Kolozsvár: a handbook of place-names and local history], (Kolozsvár: Polis Könyvkiadó, 2005), Kálmán Demkó, *A felső-magyarországi városok életéről a 15–17. században* [About the life of Upper-Hungarian towns in the fifteenth to the seventeenth century], (Budapest: Magyar Tudományos Akadémia, 1890), Károly Galgóczi, *Nagykőrös város monographiája* [The history of Nagykőrös], (vols 1-3, Budapest, 1896).

⁵³⁵ There are regular reports on gate houses from the late seventeenth century in the town protocols. (For example in 1772; MJ II 212; IThe text of the gatekeepers’ oath is documented in the town protocols from the period 1677-1690. (Hornyik, *Kecskemét város története*, vol 2, 509-510.)

⁵³⁶ The description of this system comes from 1768. *Kecskeméti szabályrendeletek*, 75-76.

⁵³⁷ For example in 1707; see MJ II 443; or in 1772, see *Kecskeméti szabályrendeletek*, 83.

⁵³⁸ 1778: *Kecskeméti szabályrendeletek*, 94-95;

meetings can be related to them. In terms of topography, churches symbolize the foci of settlements, which largely affected the whole ground plan. The date, number and the location of town parish churches may indicate the main demographic trends, illustrate the dominant development periods of the towns or refer to the decaying phases of the settlements.

Marie-Madeleine de Cevins has argued that the number of parishes in medieval Hungarian towns was relatively low compared with Western Europe; between 1320 and 1490, an average of two to three parish churches can be demonstrated in chartered towns as well as in larger market towns. Accordingly, the average pastoral area was more extended (37-38 hectares), and the number of tenants belonging to individual churches was much larger: around 3000-4000 souls were pastured by each parish.⁵³⁹ In this respect, Kecskemét fits into the group of urban settlements; there are two churches that can be identified as the parish churches of the medieval settlement. Holy Virgin church, known also as “Sandy chapel” (“Homoki kápolna” in Hungarian), and Saint Nicholas Church, both located at the main market square. In the second half of the sixteenth century, Protestants built their own wooden church, which became the third pastoral church of the early modern town. Accordingly, if we accept that the presumed number of the town’s inhabitants was around 4000-5000 in the mid-sixteenth century,⁵⁴⁰ approximately 1300-1400 people can be presumed as belonging to each church, which proportion is well below the average proposed by de Cevins.

Sandy (Virgin Mary) Chapel

According to a popular local legend, Sandy Chapel was founded by King Saint Stephen (997-1038 AD) himself, and it is supposed to be the oldest building of the town.⁵⁴¹ Sadly, there is no medieval documentary evidence directly connected to the history of this church, and apart from some rare references in seventeenth-eighteenth century wills, its history remains unknown. According to the sparse data its main altar was dedicated to the Virgin Mary, and there were two additional side altars in the building, one dedicated to Saint Jerome, and another to Saint Daniel.⁵⁴² From 1778, the chapel became the filia of the Saint Nicholas church.

The fate of the church is known from János Hornyik, a nineteenth-century local historian, who wrote in his summary on Kecskemét’s history that the chapel and the surrounding area was

⁵³⁹ Marie-Madeleine de Cevins, *Az Egyház a késő középkori magyar városokban* [The Church in late medieval Hungarian towns], (Budapest: Szent István Társulat, 2003), 20-26.

⁵⁴⁰ Káldy-Nagy, *A budai szandzsák 1546-1590*, 347-350.

⁵⁴¹ Hornyik, *Kecskemét története*, vol.1, 98; Hornyik, *Kecskemét város gazdasági fejlődésének története*, 21-22.

⁵⁴² Juhász, *Kecskemét város építéstörténete* [The architectural history of Kecskemét], (Kecskeméti Füzetek 8, Kecskemét: Kecskemét Monográfia Szerkesztősége & Tiberias Bt., 1998), 40.

destroyed by a severe fire in 1795, after which the church was not reconstructed, but the plot was sold to a citizen called Mihály Barak in 1816 (Fig 176).⁵⁴³

Based on Hornyik's description⁵⁴⁴ and the depiction of the First Ordnance Survey from 1785, the site of this church can be precisely located and is associated with the particular trapezoid-shaped plot at the convergence of Homoki Street ("Sandy Street"; first mentioned in 1747, first represented in 1819, later also known as "Kápolna utca" - that is, Chapel Street) and Gyümölcs Street ("Fruit Street", first mentioned in 1562; first represented in 1800). This plot/parcel is recognizable on the nineteenth- and twentieth-century town plans, which can be interpreted as a continuity of a pre-modern pattern in the townscape (Figs 177-178).

Regrettably, apart from some burials dated to the seventeenth-eighteenth century, the archaeological investigations could only identify the wider setting of the former site of this church so there no ground plan or architectural detail known. Representations of the church are preserved on the guild letters of the millers (1848), the blacksmiths (1830) and the weavers (1832), and these provide some indication of the former structure (Figs 179-180).⁵⁴⁵

Concerning the ecclesiastical status of this church, it has to be noted that the available early-modern documentary sources systematically refer to this church as a "chapel" (kápolna in Hungarian), not as a "parish" or "church", which, may indicate both the minor significance of the church in that period and, possibly, the relatively small physical size/capacity of the building. At the same time, the church surely had parish status, which can be confirmed by the cemetery located around it, and by the numerous donations of the citizens in their last wills from the seventeenth and eighteenth centuries.

Saint Nicholas parish church (later Franciscan church)

The other parish church of medieval Kecskemét was Saint Nicholas church, located at the main market square. In the 1970s, minor archaeological-architectural research was carried out before a major renovation, thus the medieval architectural development of the building is relatively well known.⁵⁴⁶ According to the results, the earliest church was built before the fourteenth century, and the excavation revealed that it had a fourteenth-century early Gothic phase. In the fifteenth century the apse and the nave was enlarged and renewed in late Gothic style, moreover, Saint Anne Chapel was appended to the building (Fig 181). This chapel was probably the vestry originally, but

⁵⁴³ Hornyik, *Kecskemét város gazdasági fejlődésének története*, 21; Juhász, *Kecskemét város építéstörténete*, 40-41; *Kecskemét története*, 69.

⁵⁴⁴ Hornyik, *Kecskemét város gazdasági fejlődésének története*, 21.

⁵⁴⁵ It is not clear why the building, which was destroyed in 1795 is still represented some thirty or fifty years later. One possible explanation can be that these guild letters were copied from earlier privilege letters.

⁵⁴⁶ Piroska Biczó, "Jelentés a kecskeméti Kossuth téren végzett ásatásról" [Preliminary report on the excavation at Kossuth Square, Kecskemét] *Cumania* 4 (1976), 350.

today it is the southern nave of the building. The medieval structure was surrounded by a stone wall, parts of which were found during the excavation, and a ditch (Fig 183). The church garden was used as a cemetery until 1770, and there was an ossuary north of the church at the inner side of the church wall, built in the fifteenth century.

The earliest documentary reference to Saint Nicholas Church is dated to 1475; and in 1487, the parish priest, namely Imre, son of Benedek Apostagi is mentioned. The “old stone church” is also referred to in 1564, and later in 1678. Saint Nicholas church and the pastoral care of the citizens was taken over by the Franciscan friars in 1644, who built their friary beside the church. They renovated the church in 1658, and after a conflagration fire in 1678, built Saint Michael Chapel on the ruins of the ossuary by 1698.⁵⁴⁷ Another chapel, namely Saint Anthony Chapel was attached to the northern church-wall by 1686, which is today the northern nave of the church (Fig 182).

The last major renovation of the church took place between 1777 and 1782, when the building was restored in Baroque style, which design dominates both the inner and outer the appearance of the building today. Subsequent to another fire in 1796, Saint Michael Chapel was finally demolished.

The Protestant (Calvinist) Church

The Protestant Reformation spread in Kecskemét relatively quickly.⁵⁴⁸ As early as 1564, the Catholic and the Protestant communities made an agreement about the shared use of the Saint Nicholas church.⁵⁴⁹ Soon, it turned out that this common management of the parish church by two confessional groups was not feasible, and the Protestant community decided to build their own church. The earliest Protestant church was constructed of wood according to the local tradition. The site of the building is not known, according to an entry from 1759 in the *Historia Domus* of the Franciscan Friary it was built next to Saint Nicholas church, west of it. As the archaeological

⁵⁴⁷ Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásatásról*; István Juhász, *Kecskemét város temetői* [The cemeteries of Kecskemét], (Kecskemét: KecskemétKiadás, 1999), 51.

⁵⁴⁸ The intensive international trade of animals from Kecskemét towards the south-German territories is an important general context for this trend. Besides, many of those wandering Franciscan preachers, who left the Franciscan Order, and considered to be the earliest forerunners of Protestant ideas in the first decades of the sixteenth century, such as Lőrinc Mészáros (later took a leading part in the peasant war in 1514), Mihály Sztárai, and István Szegedi Kiss demonstrably visited the Kecskemét region. There is documentary evidence on the spread of Protestantism in the Kecskemét region from the 1540s. *Ambrosius Agricola* (Ambrus Szántó), *Franciscus Cika* and *Sebastian Abbas*, who attended the Krakow University in the 1520s, were possibly the earliest transmitters of the new doctrines in the region. *István Szegedi Kis*, one of the earliest known Protestant ministers in that period resided at Cegléd from 1545 to 1548, and surely visited Kecskemét. In 1559 Martin, a married priest is registered in the Ottoman tax roll. (Káldy-Nagy, *A budai szandzsák 1559*, 173-175). There are students from Kecskemét at the Wittenberg University in 1561 (*Benedek Kecskeméti*) and in 1562 (*János Kecskeméti Agricola*).

⁵⁴⁹ Hornyik, *Kecskemét város története*, vol 2, 225.

The common management by two confessional groups is not unique, this scheme is known from other places in Hungary, for instance in Sopron (St Michael Church, 1567-1584), or in Nagykőrös.

investigations in the 1970s did not find the traces of this wooden-construction, it seems more likely that the wooden church stood east of Saint Nicholas church.⁵⁵⁰

This first construction was replaced by a stone-built church, north-east of Saint Nicholas church by 1684. The church was encircled by a stone wall and a ditch,⁵⁵¹ the church garden was used as a cemetery until 1770. Along the church wall a row of small shop-buildings (bazaar) was attached in 1714. The cemetery wall was finally demolished after a severe earthquake in 1911 (Fig 184).

7.4.4 MONASTERIES, FRIARIES

According to recent scholarly opinions, one distinctive feature of urban development is the settlement and appearance of religious orders, especially mendicant houses and hospitals in settlements.⁵⁵² However, documentary evidence reveals only scant data on the presence of religious orders, and it is supposed that before the seventeenth century there was not a single settlement beside Szeged and Pest in the central part of the Interfluvium Region where mendicants settled.

In the wider region of the Great Plain, the Franciscans settled in all major towns, such as Szeged (1301), Debrecen (1322), Gyöngyös (before 1465), (Jász)Berény (around 1460), and Gyula (before 1452) (Fig 185).⁵⁵³ In fact, it is quite problematic, but even more important to discuss, why mendicants did not settle in Kecskemét in the medieval period. At a general level, this fact underlines and indicates the relatively late and moderate urban development of the town in the fourteenth-fifteenth century period; and is why the settlement did not gain any role in the conversion of the Cumans in the thirteenth-fourteenth century. The opening of the extended churchyard cemeteries in the Cuman areas, and the spread of Christian names among Cumans signify that their conversion (or the more intense phase of this process) happened roughly in that period, which was the most intensive period of urban growth for Kecskemét in the decades between 1350s and the 1420s, when the town developed from a settlement mentioned as *possessio* into a town mentioned as *civitas/oppidum*. Still, it seems that the settlement was not urbanized adequately in terms of housing a mendicant friary in that period. The rapid development of Kecskemét slowed

⁵⁵⁰ Reference from Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásatásról. Kálvin hagyománya- Református kulturális örökség a Duna mentén. Kiállítási Katalógus* [The tradition of Calvin-Calvinist cultural heritage along the Danube; Exhibition Catalogue], (Budapest: Budapest Történeti Múzeum, 2009).

⁵⁵¹ This was described by Matthias Bel in 1737, and the archaeological excavation proved that the ditch was of 15th century origin. Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásatásról, Helytörténeti források és szemelvények a XVIII-XIX. századból*

⁵⁵² The general monastic topography of the wider region will be discussed in a separate chapter. In the context of Kecskemét monastic orders are not relevant, thus only mendicants, more closely the Franciscans are discussed here. About the mendicants and urban development in medieval Hungary in general see: Erik Fügedi, "Die Ausbreitung des städtischen Lebensform- Ungarns oppida im 14. Jahrhundert", in: *Stadt und Stadtherr im 14. Jahrhundert*, edited by Wilhelm Rausch (Beiträge zur Geschichte der Städte Mitteleuropas II. Linz/Dunau 1972), 168-172. Kubinyi, *Városfejlődés*, 8-10.

⁵⁵³ In case of Gyöngyös, Berény and Gyula, the first appearance of the friary is obviously not identical with the date of the foundation.

down in the middle decades of the fifteenth century after the town became the private property of more landlords, who, according to the written evidence were more concerned with their possessory rights and incomes than the settlements itself. By the early sixteenth century, due to the emergence of large-scale animal husbandry, which came along with the territorial expansion of the settlement (acquisition of deserted villages lands), the town supposedly developed and strengthened a higher level of urbanism. Yet, the early and intense appearance of Protestantism from the 1540s, and the political changes brought by the Ottoman occupation of Hungary probably prevented the settlement of mendicants at Kecskemét. Still, it did not mean the total lack of contacts with the religious orders; beside the Franciscans the Jesuits were present in the area, moreover in the early seventeenth century the Jesuits had serious plans to start a mission and set up a house as well as a school at Kecskemét.⁵⁵⁴ In addition, the Franciscan friaries at Gyöngyös and (Jász)Berény were directly connected to the Catholic community of Kecskemét. Contemporary sources reveal that in the sixteenth-seventeenth centuries most of the Catholic parish priests were educated at the Franciscan friary of Jászberény.⁵⁵⁵ Besides, there was a continuous and direct connection between Kecskemét and the Franciscan friars of Gyöngyös, as the Kecskemét Catholic community was deeply involved in the largest lay confraternities of the Great Plain Region in that period, namely the Congregatio Chordigerorum Sancti Francisci, founded in 1651, and the Congregatio Thaumaturgi Sancti Antonii de Padua founded in 1673,⁵⁵⁶ both established and directed by the Franciscans Friary at Gyöngyös.⁵⁵⁷

At last, the Franciscans settled at Kecskemét in 1644, and took over the Saint Nicholas church and the pastoral care of the Catholic community. They renovated the church, and built their friary next to it by 1736, using the parts or remains of a former multi-storey brick building/tower (about this see later). The church and the cloister building was partly rebuilt and renovated due to the frequent fires in the late eighteenth century, but basically preserved its baroque form into the present day (Fig 186).

⁵⁵⁴ Antal Molnár, *Mezőváros és katolicizmus. Katolikus egyház az egri püspökség hódoltsági területein a 17. században* [Market town and Catholicism. The Catholic Church in the Seventeenth Century in the Subjugated parts of the Eger Diocese], (Budapest: METEM, 2005), 88-90.

⁵⁵⁵ Molnár, *Mezőváros és katolicizmus*, 89; Szarka, *A váci egyházmegye és püspökei a török hódítás korában*, 117-118.

⁵⁵⁶ Between 1673 and 1686 the Saint Antonius Congregatio community counted 4230 members, from 210 located settlements, such as Gyöngyös, Szeged, Fülek, Kecskemét, or (Jász)Berény. Mező, *Mezőváros és katolicizmus*, 130-134.

There are numerous mentions in last wills from the 1680s and 1690s, which refer to donations to these organizations. e.g.: KT I 18; KT I 30; KT I 38.

⁵⁵⁷ It has to be noted that these organizations were not the earliest or the only lay communities that we know about at Kecskemét. The earliest data on such institutions comes from 1651, when Palatine Ferenc Wesselényi approves the regulations of the *deák céh* ('literates' guild'), which was set up to promote the cult of Virgin Mary. According to Antal Molnár, this association shows the special attributes of the late medieval lay religious groups, thus it is possible that it had former antecedents. Molnár, *Mezőváros és katolicizmus*, 124. The letter of the Palatine was published by János Hornyik (see: Hornyik, *Kecskemét város története*, vol 2, 236-245)

7.4.5 CEMETERIES

The earliest known medieval cemetery in the territory of the later Kecskemét dates back to the tenth-eleventh century, and indicates the earliest occupation phase in the medieval period. The graveyard, also known as the Vásártér or Cédulaház cemetery,⁵⁵⁸ was partly destroyed, partly excavated by Elek Kada in 1895.⁵⁵⁹ The descriptions and the find material suggest that the site was an extensive burial ground, where the graves were arranged in rows. The finds represent the typical assemblages of the commoners from this period: some silver and bronze jewellery, dress accessories, iron strike-a-lights, flints, knives, arrowheads, spade shoes and few pieces of pottery. Among the burials were more prestigious male found, equipped with few personal ornaments, but accompanied by weapons (arrowheads, swords) and the horse hide, into which the skull and the leg bones were wrapped, together with the stirrups and jointed mouth-pieces. According to the report on the excavation, no church or later graves were found at the site.⁵⁶⁰

In general, from the late eleventh century⁵⁶¹ until 1775,⁵⁶² (most) cemeteries were located around the parish churches in Hungary, thus it is adequate to discuss the topography of medieval cemeteries in the context of the ecclesiastical structure of the settlement. Accordingly, there were medieval cemeteries around Sandy chapel, Saint Nicholas church, and around the Protestant church, all surrounded by stone walls. Interestingly, the graveyard at Sandy chapel was used both by Catholics and Protestants until 1770; here the cemetery walls were destroyed in 1816.⁵⁶³

The graveyard at Saint Nicholas church is first mentioned in documentary sources in 1475.⁵⁶⁴ According to the results of the archaeological investigations, the cemetery was encircled by a simple earthen ditch in the fourteenth century, then, from the fifteenth century by a stone wall.⁵⁶⁵ In the fifteenth century an ossuary was constructed there. This ossuary was probably destroyed in 1678 by a fire, as by 1698, it was rebuilt as Saint Michael chapel. The chapel was finally ruined in

⁵⁵⁸ Interestingly, the location of the cemetery, the „Vásártér” is identical with the late-medieval- early modern site of the annual fairs!

⁵⁵⁹ Elek Kada, „Kecskeméti ásátások” [Excavations at Kecskemét] *Archaeologiai Értesítő* 16 (1896), 40-51. See also in: *A magyar honfoglalás kútforrásai* [The Sources of the Hungarian Conquest], edited by Gyula Pauler and Sándor Szilágyi, (Budapest: Magyar Tudományos Akadémia, 1900), 633-646.

⁵⁶⁰ Although the Vásártér cemetery is the only graveyard known from the later city of Kecskemét, the finds must be interpreted in a wider context of sites and find assemblages from the neighbouring areas. Thus, the famous grave with the gilt silver sabretache from Bene, and additional graveyards from Városföld, Úrrét, Törökfái and Kiscukás. should be also taken into account when discussing this period. see Fodor, István., ed., *The Ancient Hungarians* Exhibition catalogue (Budapest 1996).; Szilágyi-Pauler 1900;

⁵⁶¹ Both King Ladislaus I (1077-1095) and King Colomann (1095-1116) codified that cemeteries should be located around the churches.

⁵⁶² Empress Maria Theresa (1740-1780) codified in 1775 that for sanitary reasons cemeteries should be separated from churches and located outside the inhabited areas.

⁵⁶³ Juhász, *Kecskemét város temetői*, 37-42.

⁵⁶⁴ *in Cimiterio p[ar]ochialis Eccl[es]ie Beati Nico[la]j et confessoris in opido kechkemeth.* see: János Balyi, „Szent Miklós tisztelete a városunkban” [The cult of Saint Nicholas in our town], in: *A Kecskeméti Katona József Kör Évkönyve 1931-1932*, edited by Iván Hajnóczy Kecskemét, 1932, 93.

⁵⁶⁵ Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásátásról*, István Juhász, *Kecskemét város temetői* [The cemeteries of Kecskemét], (Kecskemét: Print 2000 Bt., 1999), 47-52.

1796 after a major fire. In the nineteenth century a row of small shops (so called bazaars) were built and used until the 1970s, when the place was reconstructed as a memorial garden.⁵⁶⁶ The area around the Protestant church was also encircled by a stone wall, and the site was used as a graveyard after the church was erected in 1684 until 1778.⁵⁶⁷

7.4.6 MARKETS⁵⁶⁸

The presence of markets is among the most significant attributes of urban development. The primary importance of markets in the development of Kecskemét is beyond doubt, as the town developed at the intersection of seven major late medieval trading routes. That the parish of Saint Nicholas, is named after the patron of merchants, provides further indications of the importance of trade within the town.

The weekly market at Kecskemét is mentioned as early as in 1393⁵⁶⁹ and the annual fair is first referred to in 1463.⁵⁷⁰ The earliest references to the annual fairs in the town protocols date back to the 1590s, when the fairs are often referred to. Although there are no surviving medieval privilege charters about the market rights of the settlements, the royal edicts from 1622 and 1696 which strengthen the rights of Kecskemét to hold three yearly annual fairs (on 12th March, 10th August, and 25th November) clearly refer to the pre-Ottoman predecessors of these fairs.⁵⁷¹ Consequently, at latest around the turn of the fifteenth century there is evidence for at least three annual fairs. Additional fair rights were granted in 1746 (for the 10th of May) and in 1798 (for the 26th September), when two weekly markets were granted (on Tuesday and Friday) as well.⁵⁷²

In the context of markets, it is important that Kecskemét had a custom station from the medieval period; in 1415 the queen's customs-officers had their office in Kecskemét;⁵⁷³ the custom station is mentioned in 1439 too.⁵⁷⁴ The custom was most probably among the most important incomes derived from the town as this revenue was listed among the ordinary incomes in 1439⁵⁷⁵ and in 1458.⁵⁷⁶ In the sixteenth century, the Ottoman administration allocated toll incomes after

⁵⁶⁶ Juhász, *Kecskemét város temetői*, 51.

⁵⁶⁷ Juhász, *Kecskemét város temetői*, 58-59.

⁵⁶⁸ My recent summary on the topic: Edit Sárosi, A kecskeméti piactér és vásártér történeti földrajza [The historical topography of the market places at Kecskemét] *Történelmi Szemle* 53 (2011): 615-632.

⁵⁶⁹ *Zsigmondkori Oklevéltár (1387–1399)*, edited by Elemér Mályusz, (Budapest: Akadémiai Kiadó), vol 1, 1951, 3215;

⁵⁷⁰ Magyar Országos Levéltár (Budapest) Diplomatikai Fényképgyűjtemény 283 678.; *Kecskemét története*, 107.

⁵⁷¹ Hornyik, *Kecskemét története*, vol 3, 249-250 „... ad idem Oppidum Nundinas liberas, seu fora annualia libera, et in festis S. Laurentii Martyris, S. Gregorii Episcopi et Confessoris, ac Catharinae Virginis et martyris, alias quoque ante depopulationem, ac dicti Oppidi devastationem per Turcicam impietatem, celebrari solitas...”

⁵⁷² Iványosi-Szabó, *Kecskemét gazdasági fejlődése*, 235; Ilona Székelyné Körösi, *Kecskeméti évszázadok. Fejezetek a város múltjából* [Centuries of Kecskemét: chapters from the town's history], (Kecskemét: Kecskeméti Lapok Kft.& Kecskemét Monográfia szerkesztősége, 1993), 32-33.

⁵⁷³ Hornyik, *Kecskemét*, vol 1, 199-200

⁵⁷⁴ Hornyik, *Kecskemét*, vol 1, 207

⁵⁷⁵ Hornyik, *Kecskemét története*, vol 1, 207-208.

⁵⁷⁶ Hornyik, *Kecskemét története*, vol 1, 209-210.

both marketing and vintage.⁵⁷⁷ The toll expected after marketing was unfortunately not recorded in details. Yet, it is notable that the roll mentions a toll of vine, not a tax paid after vine, which suggests that the levied vine was not a local product, but transported commodities.⁵⁷⁸ According to the Ottoman defter rolls, between the line of Pest-Keve-Vác and Szeged, there were not many settlements that generated tolls in the Interfluve area; other than Kecskemét and Cegléd.⁵⁷⁹

There is one more important feature that should be discussed here, namely the role of Kecskemét in the salt trade during the fifteenth century. Salt was of primary importance and considered a royal monopoly throughout the middle ages. The mining, trade, and distribution of salt were centralized. The sparse data from 1458, referring to a salt depository in Kecskemét is of primary importance. At that time, this depository had an annual income of 5000 golden Forints (Figs 187-188).⁵⁸⁰

Apart from the fact that there had been markets at Kecskemét, it is important to delienate the market zone of the settlement when describing the urban functions of Kecskemét. This can be best accomplished by defining the circuit of those merchants, who regularly attended the fairs at Kecskemét. The earliest reference to the place of origin of sellers visiting Kecskemét dates back to the 1590s, when people from Mizse,⁵⁸¹ Pataj,⁵⁸² Szenttamás,⁵⁸³ Szabadszállás,⁵⁸⁴ and Cegléd⁵⁸⁵ are mentioned. This circuit obviously circumscribes those neighboring settlements to which other settlements such as Nagykőrös, Szentkirály, Szentlőrinc, and Halas can be added, whose inhabitants were regularly invited as *convocati* in judicial processes, most of whom were presumably not professional merchants, but primary producers of agricultural goods (among them animals) or craftsmen, whose activity constituted the most solid basis for markets and fairs beside Kecskemét's own inhabitants. The places of origin of the *convocati* show evident connections with the town's regional and local market relations and the actual dates when they gathered coincide with the dates of weekly markets or annual fairs. The list can be further completed with Szeged, as there is evidence that Szeged citizens attended the markets at Kecskemét as early as 1415, when the Queen,

⁵⁷⁷ Káldy-Nagy Gyula *A budai szandzsák 1559*, 349.

⁵⁷⁸ I suggest that this sum might have been collected from merchants and not from local wine-producers. Concerning vine trade, there are documentary sources referring to the citizens of Szeged, who owned vineyards in the Szerémség Region (today in Croatia and Serbia, known as Srem Region, near the Fruška Gora area) and transported vine from that area to Buda and later towards Kosice. Although the documentary sources suggest that major part of the vine was transported by boats, there are several references that the citizens of Szeged used the road that went through Kecskemét on their way to Buda (in 1389, King Sigismund urged the nobles from Szer not to collect taxes from the Szeged citizens on their way to Buda at the Sárogyháza road, and in 1415, Queen Borbála ordered her custom officers at Kecskemét not to collect taxes from Szeged citizens), so it is possible that they transported vine through Kecskemét. Blazovich, *Szeged története*, vol 1, 403-411.

⁵⁷⁹ Káldy-Nagy, *A budai szandzsák, 1546-1590*, 165.

⁵⁸⁰ *Kecskemét története*, 110.

⁵⁸¹ 1592; MJ I 29.

⁵⁸² 1593; MJ I 30.

⁵⁸³ MJ I 45.

⁵⁸⁴ 1597; MJ I 46. They were selling oxen and horses.

⁵⁸⁵ 1599; MJ I 51.

the owner of the town at that time, declared that her custom officers should not levy tolls on Szeged citizens. Further on, in the Ottoman tax rolls that an extensive colony of Szeged citizens are listed, among them János Kalmár ('John the Merchant', later main judge of Kecskemét), who resided in Kecskemét in 1553.⁵⁸⁶ Those convocati from Ráckeve, Kunszentmiklós, Rimavská Sobota/Rimaszombat, Tolna or Túr mentioned from the mid-seventeenth century, most probably arrived deliberately for the fairs and it can be assumed that these people were in fact traders/merchants. A wider circle of trade connections can be outlined on the basis of a statute from 1698, when the town magistrates regulated the order of sellers' tents in the marketing area; then merchants from Pest, Buda, Szeged, Győr, Komárom, Beszterce, Debrecen and the Greeks of Pest as well as the Greeks from Eger are listed.⁵⁸⁷ There is also random data that Turkish goods⁵⁸⁸ and Turkish merchants⁵⁸⁹ were also present (Fig 189).

The inner market place

Concerning the site of the local weekly and annual markets and fairs, these were connected to Saint Nicholas parish church and the place around it. The fifteenth-century Gothic enlargement of the church indicates that the building and its surrounding area played a central role in the life of the settlement. From a morphological point of view, it is also striking that all the important streets begin at the market place, and lead radially from it in various directions.

The general structure of the town did not change significantly in the succeeding centuries; the centre of the town remained focussed on the market place and St Nicholas'. In the 1580s a protestant church was built next to the catholic parish at the Market place. The Franciscans founded their house in the 1640s at Kecskemét, next to St Nicholas', and subsequently the new Catholic minster in the late eighteenth century, the Lutheran church, the orthodox church, and finally the synagogue in the nineteenth century were built at the edges of this central market place (Figs 190-192).

Likewise, the administrative body of the town had been closely related to the this location, as in the first half of the seventeenth century the new town hall was built next to St Nicholas'. This building was renovated and extended in the eighteenth century, when the town clock was erected, but was continuously used until the late nineteenth century, when the new, still-standing Town Hall

⁵⁸⁶ He married Margaret, the daughter of Ambrose, a merchant from Kosice. He fled from Szeged first to Makó, then to Berehove/Beregszász, when the Ottoman army occupied Szeged, and in 1553, he moved to Kecskemét with his family where he resided until his death. László Blazovich, *Szeged rövid története* [The short history of Szeged], Dél-Alföldi Évszázadok 21, Szeged: Csongrád Megyei Levéltár, 2005).

⁵⁸⁷ MJ I 176.

⁵⁸⁸ 1594: *Hosztanak Süwegh Istan wramtol Én hoszszam Tozh Matyashoz walami terorók partekayath...* [They brought from István Süveg to me some Turkish goods] MJ I 37

⁵⁸⁹ For example in 1596 some Turkish merchants were attacked somewhere around Kecskemét, and their goods were taken to the town. Turkish merchants are also mentioned in 1678 (MJ I 121).

was built at the very same site. We learn about permanent stalls, pubs, inns and rest houses at and around the market place from the 1670s. A new brick-built well was built there by the town's magistrates in 1786.

According to the eighteenth-century sources, the markets extended into the surrounding streets around the market place. In 1800, the Town Magistrates regulated the order of the weekly markets, when the selling of various goods, such as bread, meat, livestock, fish, fruits and wheat were separated into defined areas.⁵⁹⁰

A significant rearrangement of the place took place around the turn of the twentieth century, when several blocks of houses were demolished and the central public place was opened up. Nevertheless, the weekly markets continued until WWII, and it was only in the 1950s that the market was reorganized and established on a new site. Even today the old central place remains the real focus of daily life, where occasional markets are still held.

The Vásártér ('Fair-ground')

It has to be emphasized that the most significant annual fairs and among them the specialized animal/cattle markets were probably held outside the inner settlement area from the turn of the fifteenth-sixteenth centuries, at the end of the Vásári Street, outside the Vásári Gate, at the place called Vásártér (literally 'Fair-ground'). Turning back to the topographical development of the equally important site of the larger annual markets, the significance of the place is well reflected in the fact that three of the earliest depictions connected to the town represent the Vásártér area. According to these drawings, and contemporary sources, there was a well defined area of trading activity. The northern border of the fair-ground was the Széktó and the Mária vineyards. The eastern extent was defined by the presence of the town itself, with the town ditch with its wooden palisade and the Vásári gate, while to the east and south lay extensive municipal pastures and hayfields, and from the 1720-1730s, the newly opened Holy Trinity cemetery. In 1800, the town magistrates set up crossing gates around the fair-field area during the fairs,⁵⁹¹ and surrounded the territory with ditches on its north, south and west sides (Figs 193-196).

Inside the Vásártér market area, the stalls were let to the various merchants and craftsmen. The buying and selling was also controlled by the local authorities, both sellers and buyers received a proof of payment from the market authorities, if needed. This written authentication took place in the so called Cédulaház ('Certificate House') (Fig 197). There were inns, several pubs, and also a beer brewery at the market place as well. Nevertheless, the needs of the animals driven to the fairs for selling were also considered and fulfilled as numerous wells were established; moreover the area

⁵⁹⁰ Iványosi Szabó, *Kecskemét gazdasági fejlődése*, 254.

⁵⁹¹ *Szabályrendeletek*, 135-137.

was next to extensive pastures and hayfields from the south, to supply their needs. Both the survey maps and the documents suggest that from the early eighteenth century more wind mills and animal mills were located in this area.⁵⁹²

This market site had lost its importance from the 1840s, when the sources report the decline of the fairs. Afterwards, large part of the Vásártér became a closed military area; several barracks and a horse stable were established (Fig 196). The area was demilitarized in the 1920s, and the land was slowly parcelled-out among dwellers and built in by the middle of the century (Figs 198-199).

At last, the continuity of the weekly markets and the annual fairs can be demonstrated. It can be stated that the site of the weekly markets, organizing around the Saint Nicholas parish church, was stable from the medieval period till the mid-twentieth century. Most of the ecclesiastical foundations, the local government offices, educational institutions were located at or near the market place. Thus, not only the markets, the market place became the most important organizing element of public space, which significantly influenced the structural development of the settlement.

Another development scheme can be observed in case of the site of the annual fairs, the Vásártér. Until the late eighteenth-early nineteenth century, this area was directly connected to the town. along with the changing economic possibilities, there was a major change in the function of the area; the establishment of the camps and the appearance of industrial production and at last the expansion of the habitation area, the Vásártér as a topographical element, and even as a place name disappeared from the texture of the town, thus it had neither effected later structural layout of the settlement nor was its memory maintained by the general public awareness.

7.4.7 ADMINISTRATION/SELF GOVERNANCE

Only very limited information is available about the exact administrative role of the town in the medieval period.⁵⁹³ The settlement had a clear function in the administration of the Cuman population residing in the area, as the seat of the Kecskemét szék (sedes Ketskemet) by the fifteenth century. This institution became the decision-making and jurisdictional centre of the Cuman population, led by the Comes Cumanorum ad Sedem Kechkemet, however, the town itself never became part of the Cuman administration system.⁵⁹⁴ Due to the lack of detailed documents, very

⁵⁹² Kálmán Szabó, "Kecskeméti szélmalmok" [The wind mills of Kecskemét], in: *Szabó Kálmán válogatott írásai* [The selected writings of Kálmán Szabó] edited by Isván Sztrinkó, (Kecskemét: Kecskeméti Katona József Múzeum, 1986), 395-399.

⁵⁹³ The most recent summary was written on the topic by Tibor Iványosi-Szabó. Tibor Iványosi-Szabó, "A mezővárosi autonómia formálódása Kecskeméten a XVI-XVII. században" [The development of Kecskemét's autonomy in the 16-17th century], *Cumania* 25(2010): 5-140.

⁵⁹⁴ The actual territory, the details of its role in administration and the borders are not known. (Hornyik, *Kecskemét város története*, vol 1, 214; 218) There were two more Cuman seats in the Danube Tisza Interfluvium Region, namely *sedes Halas*, and *Kara- or Mizse* seat, two seats east of the Tisza, and an additional seat in the Mezőföld Region, all

little is known about the structure and activity of the *sedes Ketskemet*, but the presence of such an institution itself that can be taken as an indirect reference to the town's importance as a regional center in the fifteenth century.

Concerning the structure of the town's self government, the first aspect to be discussed is the question of autonomy, which is usually declared to be one of the main urban characteristics of Kecs-kemét in the sixteenth-seventeenth century. The earliest indication to the local administration system dates back to the fourteenth century, when the community possessed a seal (Figs 200-201).⁵⁹⁵ The first documentary reference to the self governance dates back to 1423, when the *judex et jurati ceterique cives* of the settlement is referred to. It shows that the town had a developed system of self-governance already in the fifteenth century when it was part of the royal estate system, however, it can be presumed rather than proven that these representatives were in fact elected by the local inhabitants. The next reference to the self government of the town is from 1564, when King Ferdinand I issued a letter of protection to the inhabitants of Kecs-kemét, declaring that if anybody has any complaint or would like to enter a suit against any inhabitant of the town, that action should take place in front of the *iudex* and *cives* of Kecs-kemét.⁵⁹⁶ This action was confirmed by Palatine Miklós Eszterházy in 1632.⁵⁹⁷

Additional records, mainly the town protocols give insight to the late sixteenth- and seventeenth-century situation, which most probably reflects the sixteenth-century development.⁵⁹⁸ In this period the town was led by the main judge (*judex primarius*, *Bíró/Főbíró*), who was occasionally substituted by the vice-judge (*másodbíró*), and assisted by the inner council (*senatus*) of twelve magistrates (*jurati/esküdt tanács*).⁵⁹⁹ Beside the members of the council, other *jurati cives* (*esküdt polgárok*) were often invited, mainly to support the judicial processes. The number and the composition of *jurati* was not constant, there are various data on people involved in these duties, for example in 1600 39, in 1662 60 *jurati cives* are mentioned,⁶⁰⁰ or in 1665 twelve *jurati* are cited.⁶⁰¹ The presence of twelve and sixty council members may indicate a two-tier system of an inner council ('*belső tanács*') of twelve men and the outer council ('*külső tanács*') of sixty members, and

located at sites and in territories habited by the Cumans. In this respect, Kecs-kemét is an exception as it was not a settlement of the Cumans.

⁵⁹⁵ Judit H. Kolba, "Sigillum civitatis de Kechkemeth" *Cumania* 4 (1976): 311-327.

⁵⁹⁶ Hornyik, *Kecs-kemét város története*, vol. 1, 227-229.

⁵⁹⁷ Hornyik, *Kecs-kemét város története*, vol. 1, 250-251.

⁵⁹⁸ It was Ferenc Szakály, who argued that even if these pieces of information are relatively late, the seventeenth-century situation can and should be considered as the result of the development of the previous century. However, it is hard to sketch the earlier development phases as the primary evidences are missing. Szakály, *A hódolt megye*, 464.

⁵⁹⁹ The number of the magistrates is first referred to in 1596. (Bálintné Mikes, *Kecs-kemét város tanácsa*, 18.)

⁶⁰⁰ Katalin Bálintné Mikes, "Kecs-kemét város tanácsa a XV- XIX. században" [The council of Kecs-kemét in the 15-19th century] *Bács- Kiskun megye Múltjából* 2 (1979): 21.

⁶⁰¹ MJ I 110. It seems that the number of persons involved in the cases depended on the type and importance of the given matter.

this structure was very common in larger towns.⁶⁰² The most important task of the town magistrates was to control the general public order, jurisdiction and the collection of taxes. Some of the jurati were commissioned to perform special tasks, such as being the adjudicator of tax-collection, the market, wine, as well as being the district judge (adószedő bíró, vásárbíró, borbíró, székbíró) and the supervisor of forests. A whole range of municipal employees appeared in the second half of the seventeenth century, among them the notary of the town (first mentioned in 1662),⁶⁰³ the town innkeeper, the town cook, the town shepherd, the town coachman, the town butcher, the town miller, etc.

The judex primarius was elected yearly, usually on Saint George's day (24th April) in the parish church by the community. All inhabitants had to be present at the elections; those who were absent were to pay a penalty. After the open vote, the new judge took an oath into the hands of the priest who led the ceremony. Subsequent to the appointment, the judge and the council assembled in the town hall (first mentioned in 1642).⁶⁰⁴ Here the resigning judge accounted for the incomes of the town, and gave the remaining cash as well as the seal of the town to the new leader. At the same time, it is noteworthy that the members of the inner council were elected for their remaining lifetime, and there are signs that these positions became hereditary functions by the end of the seventeenth century.⁶⁰⁵

In case of major matters and capital crimes, a well organized system emerged beside the ordinary jury of the town. The body of convocati⁶⁰⁶ assembled in the town and passed sentences together with the mayor and council of Kecskemét. These invited persons typically came from the neighbouring settlements, such as Cegléd, Kőrös, Szentkirály, Szentlőrinc, or Szabadszállás. According to the fragmentary information of the town protocols, one to six court sessions were administered by the court of convocati yearly, and the first data on this institution is from 1598.⁶⁰⁷

The territory of the town was divided into four districts, called pars or járás. Each pars was led by a kisbíró (minor judge), whose main duties were to maintain the public order, to control the collection of taxes and to organize as well as carry out communal work and socage. These districts

⁶⁰² **SEE VARIOUS STUDIES IN:** *Tanulmányok a magyar helyi önkormányzat múltjából* [Studies about the history of local governance in Hungary], edited by György Bónis and Alajos Degré, (Budapest: Közgazdasági és jogi Könyvkiadó, 1971); as well as András Kubinyi, "Die Zusammensetzung des städtischen Rates im mittelalterlichen Königreich Ungarn." *Südosdeutsches Archiv* 34/35 (1991/1992): 23–42.; in a broader context: *Urban Elections and Decision Making in Early Modern Europe, 1500-1800.*, edited by Rudolf Schlögl, (Newcastle: Cambridge Scholars Publishing, 2009).

⁶⁰³ Bálintné Mikes, *Kecskemét város tanácsa*, 29.

⁶⁰⁴ *Kecskemét története*, 183.

⁶⁰⁵ Szakály, A *hódolt megye*, 467.. Ágnes Flóra, "From Decent Stock: Generations in Urban Politics in Sixteenth-century Transylvania, in: *Generations in Towns. Succession and Success in Pre-Industrial Urban Societies*. edited by. Finn-Einar Eliassen and Katalin Szende. Newcastle: Cambridge Scholars Publishing, 2009, 210-231; Károly Goda, *Generations of Power. Urban Political Elites in Sixteenth-century Sopron*, Ibid., 232-256.

⁶⁰⁶ The most frequently used terms were *convocati arbitores/convocatus bíróság/fogott törvénybírák/fogott esküdt személyek/fogott urak* in the town protocols.

⁶⁰⁷ *Kecskemét története*, 189.

were further divided into smaller units called tized (decima, ‘tenth’), led by the ‘decimal’ (tizedes).⁶⁰⁸

Only fragmentary information has survived concerning the activity of the Hungarian administration system, namely that which concerns the relations of Kecskemét with the executive bodies of Pest county before the seventeenth century. Thus, it can only be hypothetically assumed that the town may have had some role in the administrative body of Pest County.⁶⁰⁹ In this respect, all the available “earliest” data are coming from the late seventeenth century, when there are reports on the regular attendance of Kecskemét’s delegates at the county assemblies (sedria) at Szécsény and later at Fülek. It is also indicated that the financial accounts as well as the judgments of the settlement were repeatedly presented to the magistrates of that body.⁶¹⁰ A letter from 1660 informs us about the main duties of the local magistrates connected to the Hungarian administration system, at this time residing in Fülek: the judex of the settlement has to collect all taxes due to the Hungarian Crown together with an appointed local representative, Gergely Bán, which sum has to be delivered to Fülek personally by the judex. Besides, he has to be accompanied by the local guild masters, who have to present all kinds of measures they use, to be confirmed by the vicecomes, who, at the same time fixes the prices of their goods.⁶¹¹ The payment of the annual tax for Pest County was registered from 1624 onwards in the town protocols.⁶¹² As for the involvement of locals to the jurisdiction of the county, one example is that in 1664/1665, Ambrus Kamarás, one of the wealthiest merchants was nominated to be a juryman on Pest County in a legal case. He was subsequently elected as the main judge of the town.⁶¹³

7.4.8 OTTOMAN ADMINISTRATION AT KECSKEMÉT

As part of the Ottoman Empire the town gave its name to Kecskemét nahiye, a major unit of the Ottoman taxation census. Still, it seems that the Ottomans were hardly involved in the internal affairs of the market town. As the only measure taken, from the conquest in the 1540s to the fifteen years’ war in the 1590s, the central Ottoman administration appointed a qadi (kádi) to Kecskemét to supervise the inner order of the settlement, and the activity of the local administration. He himself

⁶⁰⁸ The number as well as the division of the tenth-system frequently changed over time, for example in 1689, twenty tenths are quoted. Bálintné Mikes, *Kecskemét város tanácsa*, 17.

⁶⁰⁹ The data on the activity of historical Pest County was summarized by István Tringli. In his discussion there are no references mentioning Kecskemét, or any person from the town contributing to the duties of the administrative body of Pest County. Tringli, *Pest megye a későközépkorban*, 145-195.

⁶¹⁰ The presence of Hungarian institutions in the subdued territories were analyzed recently by Ferenc Szakály, who argued that it is often underestimated how much the subdued settlements were coordinated and controlled by the Hungarian administrative system and landlords. Ferenc Szakály, *Magyar intézmények a török hódoltságban* [Hungarian Institutions of the Subdued Territories in the Ottoman Period], (Társadalom- és Művelődéstörténeti tanulmányok 21. MTA Történettudományi Intézete, 1997), 13-14.

⁶¹¹ MJ I 70.

⁶¹² Bálintné Mikes, *Kecskemét város tanácsa*, 16.

⁶¹³ Szakály, *A hódolt megye*, 449-450.

was actually involved only in the case of capital crimes, when it was his duty to pass sentence and, perhaps more importantly, to collect penalty fees.⁶¹⁴

Previous studies accepted that the qadi of Kecskemét resided in the town until the end of the fifteen years' war.⁶¹⁵ However there is no evidence to prove this. On the one hand the fact that an official is called the "qadi of Kecskemét" cannot be taken as a primary proof for residence within the town. There are only scant fragments of letters issued by the qadi, and, there are no direct references to whether he had a permanent office in the town. All studies agree that no Ottoman armed forces were stationed in the central part of the Interfluve Region, and that no Ottoman forces or population resided in or around Kecskemét. It is therefore quite unlikely that an Ottoman officer was left all alone in the middle of the subdued Hungarian territory. It is therefore most probable that the qadi of Kecskemét did not reside permanently in the town, and rather lived in the well-protected Ottoman headquarters at Buda, some 100 km away. He would have had to visit Kecskemét to administer his office, but the few sources relating even to this aspect reveal the limited actual influence of Ottoman culture in the daily life of the town. The latest references for the activity of the qadi are from the 1590s; after this period, it seems that the Ottomans did not make any effort to intervene in the internal matters of the market town.

It is clear that by the end of seventeenth century the inner organization of the administration reached a very sophisticated and structured level, which might be compared to chartered towns, which, for the first sight reflects the broad autonomy of Kecskemét. The question is, whether this kind of autonomy was an obtained "right", a "privilege",⁶¹⁶ or the end-result of a constrained situation, when the town, trapped between the various powers (i. e. the Ottoman Empire, the Hungarian landlords as well as Habsburg kings), was not so much autonomous, but rather isolated, in which situation local practices for the management and development of the town developed out of necessity.⁶¹⁷ The reality may lie somewhere between these two extreme views. In the second half of the sixteenth century the Ottoman supremacy dominated the administration, while the Hungarian landlords as well as administration seem to have withdrawn their power from the subdued area. However, in the seventeenth century, the Ottoman administration system lost considerable influence

⁶¹⁴ Actually, we do not know the very details when the qadi had to be informed or involved in the jurisdictional process. From the town protocols it seems that it was the decision of the town's magistrates when such cases were presented in front of the qadi, and there are notes on minor crimes (stealing, unauthorized grazing etc.) when there is no reference that the case was reported to the qadi.

⁶¹⁵ This hypothesis was first formulated by Mária Schwáb in 1939, and all later studies repeated her views without any criticism on it. See Mária Schwáb, *Az igazságszolgáltatás fejlődése a török hódoltság idején az alföldi városokban* [The development of jurisdiction under the ottoman Occupation Period in the towns of the Great Plain region] (Budapest, 1939).

⁶¹⁶ This widespread opinion was formulated by Jolán Majláth and István Márkus. See Jolán Majláth, *Egy alföldi civis város kialakulása* [The development of a civis town in the Great Plain], (Budapest: 1942), Márkus, *Kertek és tanyák Nagykőrösön*.

⁶¹⁷ Szakály, *A hódolt megye*, 462-464.

within the central part of the Interfluve territory, while the Hungarian administration gained and strengthened its control over this area.

In fact, neither the Ottoman, nor the Hungarian officials or the landowners could essentially intervene in the internal organization and structure of the town; consequently it developed independently from any outside forces. On the one hand, neither side had the power to continuously and deeply control the small-scale matters of the settlement as neither side had a permanent representative in the town. On the other hand, both the Ottomans and the Hungarian powers were principally concerned with the possible income that could be generated by the town, and they were neither personally nor financially interested in the local issues. Taking full advantage of this situation, perhaps consciously or because they were constrained by the actual circumstances, the magistrates successfully saved the optimum of independence available for the settlement, and secured its survival to the future.

7.4.9 THE TOWN HALL

In any settlement, the major visual representation of self governance is the permanent seat and residence of the local administrative system, the town hall. The first written information about the Town Hall dates back to 1642,⁶¹⁸ in the preceding period it is suggested in the scholarly discussions that the regular meetings of the town council might have been held in the house of the main judge, thus the house of the main judge in power can be interpreted as a temporary town hall.⁶¹⁹ In fact, there is only one reference from 1564, when the famous agreement between the Catholic and the Protestant citizens about the shared use of Saint Nicholas church was signed in the house of the main judge.⁶²⁰ It remains a single reference and, as such, it is not possible to conclude whether it reflects a pattern of behaviour where the judge could invite representatives to his house, or whether it was a unique event. What is clear is that there must have been regular meetings of the town representatives from the 1420s, as the first reference to the local administration system comes from 1423, when the *judex et jurati*, *ceterique cives* of the settlement are referred to. The first regular sets of data on the town hall dates back to the 1650s.⁶²¹ The town prison was also located in the same building.⁶²² The hall was renovated from 1699 to 1701 and enlarged in 1746 and 1806 (Fig 202).⁶²³

⁶¹⁸ *Kecskemét története*, 183; Géza Entz-István Genthon and JenőSzappanos, *Kecskemét* [Kecskemét], (Budapest: Műszaki Könyvkiadó, 1963), 33.

⁶¹⁹ Bálintné-Mikes, *Kecskemét város tanácsa*, 5-12.

⁶²⁰ Hornyik, *Kecskemét története*, vol 2, 225.

⁶²¹ Entz-Genthon-Szapannos, *Kecskemét*, 33.

⁶²² In 1659, due to the uprising of the imprisoned persons, the iron fences were demolished. (MJ I 68)

⁶²³ *Kecskemét története*, 358.

7.4.10 RESIDENCE/TOWN HOUSES

There are no direct sources referring to or describing the town houses from the pre-eighteenth century period, and there is minimal archaeological data on that issue. The limited archaeological records are mostly stray finds, and consist of some typical features and objects, such as ovens, that are well known from villages and also from towns, but which do not allow drawing any conclusions or patterns. Consequently, the development of the town houses can only be hypothetically drawn.

Accordingly, it can only be indirectly inferred that in the earliest phase (eleventh to fourteenth centuries) the townscape of the settlement did not differ from that of the villages, except for its size, as there are data to suggest that there were more clusters or agglomerations of houses at the site of the later town; one around Saint Nicholas church, one at Sandy chapel, and an additional cluster can be supposed c. 800-1000 m north of Sandy chapel around the later orphanage (Tanítóí Árvaház in Hungarian). In this period the houses were most likely those characteristic one-roomed semi-subterranean houses built of wattle-and-daub, which were identified in most regions of the Carpathian Basin.

A major transformation of the settlement began in all likelihood from the early fifteenth century, which meant that the size of the settlement and the number of inhabitants gradually grew, as it is reflected in the enlargement of Saint Nicholas church, the appearance of the self governance of the town, and most probably the smaller settlement clusters gradually merged. From the period it can be supposed that the sites of the plots became fixed, and the route of the major streets developed. The appearance of the houses also changed; most of them were probably built as one-storey super-surface structures, with two or more rooms.

It is possible that brick was also used as building material, as the only traceable medieval secular building of the town, namely the two-storey building (tower?) next to Saint Nicholas' dated to the fifteenth century, was built of brick (Fig 203). At the same time, there is no data except for the churches that stone was used as building material.

There is one direct documentary evidence that one of the main landowners might have had a local representative residing in Kecskemét, namely from the year 1520, when Peter Thot, a nobleman, who was the official and provisor, the person in charge of Imre Patochy at Kecskemét, launched a court case against Kecskemét because of a stolen horse.⁶²⁴ There is no further reference, whether this official or the landowner had in fact a residence in the town. Nevertheless, as there are more landowners and noble families who used the form de Kechkemeth as part of their family name

⁶²⁴ MOL Q 73 / BODROG 5. This data was included neither in Kubinyi's nor Iványosi-Szabó's work! This means that at least one extra point can be added to the overall score of Kecskemét concerning its central-urban functions, namely the presence of seigniorial representative in the town.

in the fifteenth and early sixteenth century, this possibility seems acceptable.⁶²⁵ Furthermore, the question of residence can be connected to the above mentioned two-storey brick-built building, which was dated to the fifteenth century by a small-scale architectural survey. The original architectural form, the owner or the function of this building is not known, likely it was built/used/owned by the custom officers of the queen mentioned in the early fifteenth century, or one of the private landowners in the second half of the fifteenth century.

The first references to the expansion of the viticulture date back to the sixteenth century; and it is likely that at least part of the houses were provided with some kind of cellars. There are data about illegal wine selling (that is ‘kurtakocsmá’ in Hungarian) at town houses already in the earliest town protocols from the 1590s. Thus it can be concluded that the produced wine, or part of it was stored at the houses.⁶²⁶ Beside the house, additional structures, such as stables, animal sheds were also built on the town plot.⁶²⁷ The agricultural produces, crops were stored in large subterranean pits even in the eighteenth century, which, interestingly, were partly placed in (or rather below) the public streets.⁶²⁸

There are no statistics on the exact number of houses from the study period; only one piece of information survives from 1597, when it is recorded that due to wartime demolitions only three hundred and twenty-seven houses stood from the total five hundred-eighty that were previously counted.⁶²⁹ From 1678 onwards, the construction of new houses or stables had to be announced to the town magistrates.⁶³⁰ The flat townscape underwent a major transformation in the eighteenth century, when the first multi-storeyed buildings (the town hall, the Franciscan and the Piarist friaries, and the military barracks) were built.

7.4.11 EDUCATION AND SCHOOLS

There is not too much information available about the presence and scale of education in pre-modern Kecskemét. The account books of the Polish prince Sigismund mention the chorister students of the Kecskemét school from 1500-1505, which was possibly located near St Nicholas parish church.⁶³¹ The presence of the late medieval school can be further indirectly attested by the

⁶²⁵ 1458: Joanne Peero de Kechkemeth (Hornyik, *Kecskemét története*, vol.1, 209); 1523: John Pathochy of Kechkemeth (MOL 36400); the wife of Nicholas Pathochy of Kechkemeth (MOL 36400); 1558: Casparis, Francisci, Nicolai et Ludovici Patochy de eadem Kechkemeth (Hornyik Hornyik, *Kecskemét története*, vol.1, 223)

⁶²⁶ MJ I 35.

⁶²⁷ Stables are regularly mentioned as part of the plot when the marketing of a property is described. MJ I 69; MJ I 137; MJ I 172.

⁶²⁸ The setting of the pits caused frequent problems as under longer wet weather conditions they often collapsed, which caused serious problems concerning the traffic. The earliest reference to pits comes from 1598 (MJ I 50, 52, 53) In 1677 at the *Derék* street, István Szűcs had six pits at his plot (MJ I 115). There is a detailed description of pits from 1692, when twelve pits are described around the Saint Nicholas church. (MJ I 145)

⁶²⁹ Hornyik, *Kecskemét története*, vol 2, 340-341.

⁶³⁰ *Szabályrendeletek*, 31.

⁶³¹ Mészáros, *Kecskemét gazdasági élete és népe*, 158; *Kecskemét története*, 159.

fact that numerous students from Kecskemét visited the universities of Vienna, Krakow or Padova from the 1420s onwards.⁶³²

In the early sixteenth century, parallel with the appearance of the Lutheran doctrines, a Protestant school was established in the town;⁶³³ according to the Calvinist tradition, the earliest roots of protestant education go back to the 1540s. The Wittenberg University was attended by Benedict of Kecskemét in 1561 and John Agricola in 1562. Until 1570, the Protestant (Calvinist) town school worked as a primary and lower secondary classes; afterwards it was reorganized as a six-class secondary school. The high level of the Protestant education is well represented by the fact that there are eleven ministers whose surnames contain 'Kecskeméti' ('from Kecskemét') residing in Heves, Zemplén Szatmár and Gömör counties between 1580 and 1608.⁶³⁴ In 1678, after a fire the building was extended and renovated. The site of this early school building has not been identified yet, probably it was located at the site of the later, nineteenth-century Calvinist College building between Saint Nicholas' and the Calvinist church.⁶³⁵

The Ottoman defters, especially the list from 1559 mention the Oskola utca, that is the School Street. Although it is not clear whether the records refer to the Catholic or the Protestant school, this data clearly indicates, that the school was an important topographical factor, which gave name to a street and was probably also used by census collectors as an indicator. More information is available from the late sixteenth-seventeenth century, when both Catholic and Calvinist education was present in the town. The Catholic school was probably located in or near the building of the Franciscan friary, and was operated by the Franciscans from 1644, both at an elementary and secondary level. The upper classes were taken over and taught by the Piarists from 1725, and around that time a separate elementary class is mentioned for girls.⁶³⁶

7.4.12 HOSPITALS

The presence of hospitals or hospices in market towns is an additional important indicator of urbanity. Yet, there are no data on a hospital or hospice in Kecskemét before the eighteenth century. The earliest record about the Catholic infirmary and pauper asylum is from 1716. There was also a military hospital mentioned as early as 1737 by Matthias Bel.

⁶³² *Kecskemét története*, 160.

⁶³³ This institution has been working more or less continuously since then, today it is still called "Protestant Secondary School".

⁶³⁴ Szakály, *A hódolt megye*, 408- 414.

⁶³⁵ *Kecskemét története*, 575; besides the exhibition catalogue on the Calvinist church mentioned above contains further details concerning the school.

⁶³⁶ The Catholic Congregation bought a building for this purpose in 1717, which was renovated in 1722. ("fonyott, süvényes, nyílalófákkal" erősített, sártapasztásos falakkal, "sindel fedéssel" rendelkező épület BKML XII.9. Róm. Kat. Egyházközség számadási Könyvei 1681-1737, Juhász, *Kecskemét város építéstörténete*, 114.)

7.4.13 INDUSTRIES: CRAFTS AND GUILDS

The presence of guild organization is another very important sign of urban development, and a reliable indicator of central functions. However, it has to be noted that information and written evidences on the medieval Hungarian guild system is very much accidental in general. Accordingly, scholars argue that information on guilds should be interpreted with caution, and should be considered as indicators of trends but not as realistic sets of data. It was András Kubinyi, who collected and compared recently the available information on medieval guilds in the Great Plain Region.⁶³⁷ Concerning Kecskemét, most likely a solid body of variously specialized craftsmen lived and worked in the market town by the fifteenth century, whose wealthiest group is likely identical with the jurati of the town mentioned in the fifteenth century documents. Unfortunately, there is no detailed evidence on the nature of the crafts or industries present in the town before the mid-sixteenth century. The first evidences for guilds and craftsmen date back to the mid-sixteenth century, and additional information can be drawn from the detailed tax rolls and listings of taxpayers from the years 1546, 1559 and 1562.

First, let us consider the earliest data on the guilds. There are data on three guilds from the sixteenth century, while three additional guilds were formed in the seventeenth century. In 1557, a group of goldsmiths, led by Benedek Ötvös, Sebestyén Ötvös and Imre Ötvös (their surname 'Ötvös' means 'goldsmith') who were immigrants from Szeged, but at that time inhabitants of Kecskemét, were allowed to form the guild of the goldsmiths. As their former articles issued at Szeged were lost, new articles were issued to them by the goldsmith guild and the town magistrates of Debrecen, and were approved by both the local town council and the Ottoman authorities.

⁶³⁷ Kubinyi, *Városhálózati*, 23-24. It is striking from his discussion that there are data on guilds from the primary urban centers such as Pest (twelve guilds), Szeged (three guilds), Várad (three guilds), and from smaller towns and significant market towns such as Debrecen (six guilds!), Gyöngyös or Gyula (one-one guild), but except for some rare examples (such as Zenta, Szond or Tur) there are not at all available information about settlements defined by medium urban functions.

Location	Nagy utca mahalle	Gyümölcs utca mahalle	Oskola utca mahalle	Szenmária utca mahalle	Új utca mahalle	Kozma utca mahalle	Szentlőri nc utca mahalle	Varga utca mahalle	total
craft									
tailor	12	4	4	2		2		1	25
furrier	6								6
shoemaker	3	1			1		1	2	8
harness- maker	1						1		2
ironsmith	4	6	1	1					11
goldsmith	1		1		2	1			5
merchant	1	1			1				3
carpenter	2	2		1					5
butcher	2				1	1			4
barber	2								2
carter	1	2	1	2					6
miller	1						1		2
bucket- maker		2							2
weaver							1		1
tanner		1							1
window frame- maker	1								1
wood- carver				1					1
tub-maker			1						1
bread baker			1						1
total	37	19	9	7	5	4	4	3	87

Table 8 Number and type of crafts at Kecskemét in 1559 (after Káldy-Nagy, A budai szandzsák 1559, 173-177.)

Not much later, in 1559, the furriers founded their guild,⁶³⁸ in the 1580s the tailors established their guild organization,⁶³⁹ both with the agreement of the Ottoman administration. In 1642 the soap makers' guild was formed,⁶⁴⁰ in 1653 the guild of smiths, locksmiths, and gunsmiths,⁶⁴¹ while in 1656 the bootmakers guild's articles were recorded (Fig 204).⁶⁴² Unfortunately there are relatively less data on mills and millers, although milling was certainly another dominant industry. In 1562 twenty mills worked in the town, and we know from a further reference from 1597, that millers from sixteen mills were punished because of using false measures, and in 1690, 38 mills are referred to.⁶⁴³ In 1706 the "old town mill" (mola aliata [sic!], or in Hungarian Város Régi Szélmalma) is cited, which stood in the Vásártér area, southwest of the town.⁶⁴⁴ As compared to regional standards, it can be inferred that only few settlements had such amount of mills: in 1562 at Pest there were twenty-two mills, at Buda twenty mills were listed, while Ráckeve had nineteen mills, Vác sixteen mills, at Cegléd eleven, and at Nagykőrös only three mills were levied with taxes.⁶⁴⁵

Additional data on crafts can be derived from the surnames of the listed tax-payers,⁶⁴⁶ as many of the surnames of the inhabitants offer likely proof for the craft they pursue. The following table gives an indication on the types of crafts that appear in the citizens' names, and the ratio of crafts among the Ottoman taxation units in 1559.

Accepting that in 1559 all in all 492 persons were recorded, 402 of whom were family heads, the figures represented in the table suggest that 17,6% of all listed persons, in other words 21,3% of all family-heads were involved in crafts.⁶⁴⁷ If we look at the data on a lower, street-scale level, it is striking that most craftsmen lived in Nagy utca mahalle ('Major Street mahalle'), that is the major road connecting the inner market place with the site of the annual fairs, and a considerable number of crafters lived in the neighbourhood of the two parish churches around in Gyümölcs utca mahalle ('Fruit Street mahalle').

The data sets reveal that a relatively large and specialized group of craftsmen lived in the town. The most populous group among them were the tailors, the furriers and the blacksmiths. It is

⁶³⁸ The letter of foundation is published in: Hornyik, *Kecskemét története*, vol 2, 280-283.

⁶³⁹ The first reference on this organization is the official seal of the tailors' guild from 1585.

⁶⁴⁰ Hornyik, *Kecskemét története*, vol 2, 319-331.

⁶⁴¹ Hornyik, *Kecskemét története*, vol 2, 293-299.

⁶⁴² Hornyik, *Kecskemét története*, vol 2, 331-340.

⁶⁴³ Mészáros, *Kecskemét gazdasági élete és népe*, 95; *Kecskemét története*, 426

⁶⁴⁴ Kálmán Szabó, "Kecskeméti szélmalmok" [The wind mills of Kecskemét], in: *Szabó Kálmán válogatott írásai. A kecskeméti Katona József Múzeum Közleményei* 2, edited by István Sztrinkó, (Kecskemét: Katona József Múzeum, 1986), 395-399.

⁶⁴⁵ Mészáros, *Kecskemét gazdasági élete és népe*, 95.

⁶⁴⁶ It is an accepted method in historical study to draw consequences on the presence of crafts from the analyzes of recorded surnames. However, these consequences has to be interpreted carefully.

⁶⁴⁷ Káldy-Nagy, *A budai szandzsák 1546-1590*, 347.

worth noting that the relative ratio or the number of such crafts as goldsmiths, shoemakers, harness makers, barbers did not change considerably over time. It is apparent that those crafts connectable to processing of ox-hide and sheepskin is varied and numerous (tailor, furrier, tanner, shoe-maker, harness-maker, and this list can be completed with the butchers and soap-makers, who utilized significant amount of suet) which directly show the stimulating effects of animal husbandry on the development of specialized crafts.

The figures indicate that the number of craftsmen almost doubled between the years 1546 and 1559.⁶⁴⁸ Unfortunately, there is no comparative documentary evidence on crafts from the pre-1540s, thus on the basis of these data sets alone one cannot convincingly decide whether this sudden increase of crafts and craftsmen in the 1550s was the result of a continuous inner development, or rather the result of a major migration process caused by the revolving Ottoman raids from the 1520s onwards, which affected mostly the southern and central part of the kingdom.⁶⁴⁹

Yet, this increase in the number of craftsmen does not mean a radical change in the overall proportion of craftsmen as compared to the presumed total population of the town. It can be inferred from the data that around 17-21% of taxpaying household heads were involved in crafts, which is the general proportion/percentage observed in the urbanized group of market towns.⁶⁵⁰

Name of the town	The ratio of craftsmen-names as compared to the total number of household heads	
	1546	1562
Buda	24%	22%
Pest	28%	38%
Keve	29%	29%
Vác	24%	24%
Kecskemét	17%	21%
Cegléd	13%	8%
Kőrös	11%	12%

⁶⁴⁸ In case of Kecskemét, luckily, a very detailed “preliminary”, or “draft” version of the tax roll survived from 1559. The Ottoman commissioner, who was sent to register the taxpayers in 1559, was given a copy of the previous census-list from 1546 to enable him to identify both the settlements and their inhabitants. Thus, the previous tax-roll was read out in every place, and those who were present were questioned with respect to their family status. Moreover, notes were made on all those, who did not answer, and also the causes of their absence were documented (i.e. “died”, “disappeared”, “run away”, “moved”). Besides, all those were registered who newly arrived to the settlement. Káldy-Nagy, *A budai szandzsák 1559*, 13.

⁶⁴⁹ Mészáros, *Kecskemét gazdasági élete és népe*, 102.

⁶⁵⁰ Similar ratio was observed for example in case of Gyöngyös (18%), Miskolc (17%), Ráckeve (23%). Bácskai 1965, 52., Kubinyi, *Városfejlődés*, 126, 140, 152.

Table 9 The proportion of craftsmen in the urban settlements of the Danube-Tisza Interfluvial Region (after Mészáros, *Kecskemét gazdasági élete és népe*, 99)

The newcomers usually took over the places of the deceased tradesmen, and in fact there are only few crafts, such as goldsmiths, tailors, furriers, and the blacksmiths whose increasing number is striking in these decades. The demands of the dynamically growing population, and the favorable marketing possibilities for the products were most likely the two main reasons that attracted craftsmen. Besides, the easy access to raw materials (oxhide or sheepskin) for furriers and tailors (who partly also worked with various furs),⁶⁵¹ must have been a further reason why they chose to move to this particular town.

To sum up, the high number of significantly differentiated crafts and the presence of such luxury crafts as the goldsmiths who established their guild in the mid-sixteenth century, obviously rank Kecskemét among the developed regional urban centers of the period.

7.5 CONCLUSIONS ON THE URBAN DEVELOPMENT OF KECSKEMÉT

The present assessment has revealed that the scale of urbanity, and the presence of urban functions were more dynamic and intense from the sixteenth century at Kecskemét than it has previously been supposed. Beyond doubt, there were two major features, namely its geographical location and the ecological environment of the region that contributed to the emergence of the settlement, encouraging its participation in regional and long distance trade and promoting the development of large-scale animal husbandry. In this respect, the urban development of Kecskemét represents a special model, as it was primarily stimulated by agricultural production beside trading, and presumably animal husbandry encouraged the appearance of specialized crafts in the town. In addition, in the thirteenth-fourteenth century the royal ownership was a further important factor in the growth of the town, while from the sixteenth century, due to the special political situation, the relative independence from Hungarian as well as Ottoman landlords played a significant role in the urbanization.

The function of Kecskemét as a major nodal point in the central part of the Danube-Tisza Interfluvial Region in the late medieval- early modern period is beyond doubt. The town is first referred to as *civitas* in 1415, than steadily mentioned as *oppidum* from 1423 onwards. If we take the system of urban indicators defined by András Kubinyi, the most prominent indicator of Kecskemét is its role as a major traffic junction; eleven other central places could be reached from

⁶⁵¹ There are various reports on furriers complaining that the tailors worked with fur also. For instance in 1590 the Ottoman qadi issued a letter, in which he prohibited the tailors of Kecskemét from producing furriers' articles. See: Hornyik, *Kecskemét története*, vol 2, 285-287.

the town without reaching other central sites. Connected to this, the three annual fairs and the weekly market can be mentioned among the major urban characteristics. The presence of crafts can only be discussed from the mid-sixteenth century; there are data on three guilds (goldsmiths, furriers, tailors) and specialized craftsmen in the sixteenth century, many of whom were connected to the processing of animal products. The Ottoman tax rolls suggest that in 1559 the ratio of craftsmen among the registered family heads were around 20 % (17,6 % of all listed citizens), which data corresponds with the proportions revealed in other major market towns in the Great Plain Region.

In addition, the presence of self governance in the town, the royal customs office, and the administration of salt production in the fifteenth century reflects Kecskemét's urban potential. In respect of judicial activities, Kecskemét's role as a Cuman seat had to be mentioned, besides, the town performed independent judicial activity at latest from the mid-seventeenth century. Concerning the presence of residences, it is likely that the landlords of Kecskemét had a permanent seat in the town. There is a relatively small number, all in all five students attended the Vienna university between 1420 and 1450, who arrived from Kecskemét. At last, there is no proof for the settlement of religious orders in the town, the earliest data on the continuous presence of Franciscans is dating from the second half of the sixteenth century, their settlement dates back to the 1660s.

In terms of morphology, the first detailed topographic map of the settlement was drawn during the First Ordnance Survey of Hungary in 1783, which reveals that the settlement probably developed from more compound clusters of settlement cores. Two well defined agglomerations can be identified around the medieval parish churches, characterized by dense, small clusters of houses and irregular, deviating street pattern, and, there is a third cluster of parallel, more regular, rectilinear streets in the north-eastern part of the town.

Accordingly, it can be deduced that settlement developed from two settlement cores, with two individual parishes. The areas around the medieval parishes were surely populated in the first settlement phase, and the dense, irregular clusters are probably represent the earliest texture in the town plan. The inner market place around Saint Nicholas' and the outer market place (Vásártér, 'Fair-ground') were probably the two dominant factors from the late medieval period which fundamentally influenced the development of the town's structural layout. The special connection zone of the two settlement cores were likely around the line of the Gyümölcs/Kápolna Street and the Vásári Street, which areas might have been inhabited in further phase of growth. There is one more medieval built feature known from the inner city, namely a brick-built, at least two-storey high tower in the close neighbourhood of Saint Nicholas', which was incorporated into the building of the Franciscan Friary in the seventeenth century; it is likely to have been a residence by one of

the private landowners, or perhaps it was for the custom officers of the queen who were mentioned in a document from the early fifteenth century.

The Ottoman tax rolls, and the emerging town protocols name twelve streets in the mid-sixteenth century, which reveals that the town had a composite, multi-street plan by that time. The town was defended by a system of a ditch and palisades in the late sixteenth century; however the exact dating of the defence system is unknown. Beside the two medieval parishes, the Protestant (Calvinist) church is a new feature in the townscape from the late-sixteenth century. There are uncertain data about the dating and the site of the earliest town hall, the first textual reference for building a new town hall is from the 1650s opposite Saint Nicholas'. Further on, there are many topographical features, such as shops, workshops, mills, and wells, which are referred to in documentary sources, but their sites cannot be identified.

It can be supposed that during the seventeenth and eighteenth century the town expanded radially along the main streets, that is, in the directions of traffic, such as the Kőrösi street, the Pálkai street and the Szentlőrinci Street. Although there is no direct information on the pre-eighteenth century extension of the town, it is striking that there are small "squares", or rather convergences of four-five minor streets along these major streets on the eighteenth century town plan, which might refer back to earlier stages of town development, namely, to a former town boundary, or sites of earlier town entrances, and perhaps show an earlier line of the town ditch. In addition, it is obvious that the possible direction for the growth of the settlement in the seventeenth-eighteenth century was influenced by the location of the Vásártér (the 'Fair-ground'); the special spatial needs of the fairs presumably blocked the expansion towards southern direction. Accordingly, the main expansion was directed towards the north- and northeast. The more regular, grid-like street pattern north-, north-east of the Dellő Lake, thus can be the remains of a planned expansion along the elongation of the Kőrösi street, which happened probably in the seventeenth-eighteenth century period. This theory is further confirmed by the documentary references of street-names: the two main streets in this area beside Kőrösi Street, namely Main Budai Street (Budai Nagy utca) and Szolnoki Street (Szolnoki utca) are not referred to earlier than the late-eighteenth century.⁶⁵² Conclusively, the available information on the pre-modern town plan of Kecskemét allows us to infer that the settlement most definitely had an urban character by the second half of the sixteenth century. The urban use of space is especially represented by the dense pattern of streets referring to high densities of houses around the parish churches, the widened main streets, the accommodation of the market places, and the presence of a defensive structure around the town. Still, the pre-eighteenth century architecture of the settlement presumably resembled rural

⁶⁵² However, this does not automatically mean that they did not exist in the preceding period, maybe these routes were known under other names.

settlements, as the townscape was dominated by one-storied buildings built in the fashion of village houses.

Continuity is another aspect, which is relevant in the townscape of Kecskemét; the factors displaying the strongest and most visible permanence in the townscape are the streets, both the name and the pattern of the streets. Beside the streets, the latest possible track of the former defensive ditch system and the sites of the five major gates had further major impact on the settlement morphology. The foundation of new suburbs from the early nineteenth century and the establishment of the railway in 1851-1852, north of the line of the former town ditch, opened up new perspectives for human and industrial expansion. Still, the line of the former town ditch is a clear border line, and structurally divides the “old town” area from the more recent suburbs. Among the permanent features in the townscape, the market place around Saint Nicholas’ must be referred to. This area was the site of the weekly markets from the medieval period until the 1950s, where the main parish, Saint Nicholas church, the Calvinist church, the Town hall, and the schools were located. In the eighteenth and nineteenth centuries additional important ecclesiastical foundations such as the new Catholic parish church, the Lutheran church, the Greek Orthodox church, and the Jewish synagogue were all built at the border of this central public space, in the convergences of the market square and the main streets. This pattern noticeably demonstrates that the central zone of communal life was closely connected to the market without any shift over time. A significant rearrangement of the place happened only around the turn of the twentieth century, when several blocks of houses were demolished and the central public place was opened up as a promenade. This design even more emphasized the focal communal character of this area, thus, today this central place is the real focus of everyday life, where occasional markets are still held.

Finally, the development of Kecskemét represents a special pattern of urban growth. Instead of the presence of specialized crafts or industries, animal husbandry and trading were the two major motivating features that encouraged urbanization from the late fourteenth century. The pace of progress slowed because of changes in ownership but equally gathered pace during the Ottoman Occupation Period; it can be inferred that the full urban functions and character of the town developed by the mid-seventeenth century, from which period Kecskemét became the dominant urban core in the central part of the Danube-Tisza Interfluvium Region. In the case of Kecskemét, the developed self governance and the sophisticated social frameworks, the economic production and the elements of the townscape were all made up of a special mixture of urban and rural features, which highlights the fact that urban functions and rural-type townscapes were dynamically and flexibly connected. Finally, the apparent relation between agricultural production and urban as well as industrial development at Kecskemét may contribute to the better understanding of urban-rural relations.

8. LAND MANAGEMENT

The challenge that lies at the focus of this chapter is how the fields around late medieval and early modern Kecskemét were arranged and used in the sixteenth century. I will discuss how the management of lands around Kecskemét was interconnected with economic production, and how the economic production of the settlement could remain a successful contributor to the international as well as the internal animal trade during the Ottoman Occupation Period. My assumption is that the understanding of field systems also contributes to the interpretation of the morphological character of the town, and reveals the strong interactions between the town and countryside.

8.1 THE WIDER CONTEXT

Pre-modern landscape was not only determined by the structure or the hierarchy of individual settlements, but the land use and the various managements of the fields also characterized the setting. During the medieval period, the utilization of the outer areas remained in the framework of agricultural production. The organization of land use was influenced by the continuously changing political, legal and technological conditions, reflecting the changes in the extent and the distribution of various cultivated lands.⁶⁵³

The emerging study and methodology of land management and field systems in Hungary is greatly influenced by Anglo-Saxon scholarly contributions to the topic, which were introduced in Chapter 2 of the present thesis, on sources and methodology. The evolution of medieval Hungarian agricultural systems was summarized recently by József Laszlovszky, who concluded that along with the environmental and ecological conditions, the development of agricultural landscapes in the Carpathian Basin was strongly influenced by demographic as well as social processes. He argued that beside the mainly theoretical historical and ethnographical discussions on the few direct references to medieval agricultural practices, there has been increasing interest among archaeologists in recent decades to survey agricultural techniques as well as field systems; basically by introducing new source types, such as landscape features into the interpretations, which contributed significantly to the understanding of these disciplines.⁶⁵⁴

Yet, the majority of the Hungarian surveys concentrated on the western, Transdanubian part of the country, which is better supplied with written documents and due to more favourable historic circumstances, more archaic forms were preserved in the landscape than in most other parts of the

⁶⁵³ Maksay, *A magyar falu középkori településrendje*, 133.

⁶⁵⁴ For latest summary see Laszlovszky, *Field systems*; and Laszlovszky, *Földművelés a késő középkori Magyarországon*.

country. With regards to the Danube-Tisza Interfluvium area, the question of land use has been neglected by archaeologists up to recent years.⁶⁵⁵ This lack of interest is partly based on the pessimistic arguments of historians on the insufficient documentary sources, and degraded, “man-made” modern landscape, and also due to the fact that archaeological investigations generally focused on the infields, namely the houses, plots and other built features of the settlement, while generally no attention was paid to remains of the outfield system.

At the same time, the matter of land use in the Danube-Tisza Interfluvium Region became a core issue for historical geographers and ethnographers: in the last two decades, most of the discussions on the historical land use were connected to geographical or ethnographical studies.⁶⁵⁶ A common feature of these studies is that they do not cover the pre-eighteenth century periods in detail. When searching for the origins of modern phenomena in the land use practices, scholars continue to rely on the inadequate use of data from earlier periods, and try to understand pre-modern features by routines largely invented for interpreting modern developments. This attitude often results in a special mixture of various types of information and, unfortunately, presents the development or the layers of the landscape with confusing switches between the historical periods. In my opinion, the most serious problem is that many studies try to link directly the scarce information of the fifteenth-sixteenth century to the better documented eighteenth-nineteenth centuries, or grasp some details from either periods to prove certain theories about land use at a particular time, without considering the fact that the appearance of similar settlement or land use features in various periods cannot be automatically taken as a proof of continuity in the land management; in fact similar features observed in different periods might indicate diverse historic or economic environment.⁶⁵⁷

The main problem when dealing with the landscape of the Interfluvium area is that this region is one of the most degraded areas of the Carpathian Basin for the survival of historic flora and fauna elements. Ecologists argue that there has been a continuous shift – expansion and regression – between arable lands and pastures in this region in the last millennium, and it is highly possible that there is not a single grazing field or meadow today that has not been at least once ploughed since the medieval period.⁶⁵⁸

⁶⁵⁵ Some new, archaeology-focused literature: Pálóczi-Horváth, *A késő középkori Szentkirály határhasználatát és gazdálkodását*, Bálint, *Az Árpád-kor településhálózat környezeti háttere*, Laszlovsky-Rácz, *Monostorossáp*, Nyári-Rosta, *Középkori szántás a homok alatt*.

⁶⁵⁶ Some examples: Beluszky, *Historische Geographie der Großen Ungarischen Tiefebene*; Novák, *Településnéprajz*, János Báth, *Szállások, falvak, városok*.

⁶⁵⁷ For example isolated farmsteads were present in the Árpadian Period, and are part of the modern landscape mainly from the eighteenth century; however the economic system which stimulated their appearance is completely different. See: Laszlovsky, *Field systems*.

⁶⁵⁸ Biró, *A történelmi térképekre alapuló vegetációrekonstrukció*, Illyés-Bölöni, *Slope steppes, loess steppes and foreststeppe meadows in Hungary*.

In the framework of the present thesis, I have attempted to gather the various types of information on the subject of land use, to connect the various available sources types which are traditionally interpreted in isolation and find ways to use them more effectively to enable some insight on the effect of land management, and the identification of possible historic landscape elements. In the following discussion I describe the main elements of the pre-modern landscape, which are intrinsically associated with land use, such as the boundaries, the system and the pattern of the fields, with a special emphasis on the relationships of ploughed land, pastures as well as hayfields. I paid special attention to vineyards and orchards as well as woodland management, in the context of the production and ownership, which are aspects that not been highlighted in previous studies.

8.2 BOUNDARIES

Boundaries can be characterized as deliberate and often visible frameworks in the landscape. As boundaries represent ownership, which has direct influence on land management, the definition or reconstruction of any land units or territories is very relevant to historical reconstruction.⁶⁵⁹ There are various hierarchical levels of boundaries, represented by various territorial units (such as counties, dioceses, parishes, estates, etc.), which together constitute the territory of the country. The borders between the communities' settlement areas had basic importance, since these boundaries actually defined and influenced their daily life.

The earliest references to boundaries in the medieval Kingdom of Hungary originate from the eleventh century.⁶⁶⁰ As the settlement of the communities was not stable in the following two centuries, one of the main structural changes in the medieval landscape of the Carpathian Basin was the consolidation of the network of settlements in the late thirteenth and the fourteenth centuries, which also had a visible effect on the stabilization of boundaries between communities. Among the primary sources, medieval perambulation charters and the earliest set of topographic maps have

⁶⁵⁹ Here I would like to refer to some basic literature on the topic: Ernő Tárkány Szűcs, *Magyar jogi népszokások* [Hungarian legal folk traditions], (Budapest: Akadémiai Kiadó, 1981); Lajos Takács, *Határjelek, határjárás a feudális kor végi Magyarországon* [Boundary marks, perambulations in Hungary in the latest phase of Feudalism], (Budapest, Akadémiai Kiadó, 1987); Péter Havassy, "Határjelek és határjárások a középkori Békés vármegyében" [Boundary marks and perambulations in the medieval Békés County], *Békés Megyei Múzeumok Közleményei* 23 (2002): 459-480; Péter Havassy, "Az Alföld középkori határjeleinek kérdéséhez" [About the boundary marks of the Great Plain Region], *Studia Szatmariensia* 1 (2001): 39-45.

⁶⁶⁰ György Györffy, "A tihanyi alapítólevél földrajzinév-azonosításaihoz" [About the geographical-names in the foundation charter of the Tihany Abbey], in: *Emlékkönyv Pais Dezső hetvenedik születésnapjára*, [Studies in Honorem Dezső Paizs on His 70th Birthday], Bárczi Géza- Benkő Loránd eds, (Budapest: Akadémiai Kiadó, 1956), 407-415; József Laszlovsky, "Dedi eciam terram, que adiacet circa aquam, que vocatur Tiza". Adatok az 1075-ös garamszentbenedeki oklevél helyneveinek lokalizálásához" ["Dedi eciam terram, que adiacet circa aquam, que vocatur Tiza": Contributions to the localisation of place-names in the deed of Garamszentbenedek from 1075] *Zouunuk* 1 (1986): 5-24; Takács, *Medieval hydraulic systems in Hungary*, and Szabó, *Forests in Medieval Hungary* also gives a methodological guidance in using perambulation charters.

immense and manifold importance in the study of boundary markers in Hungary, as these sources represent the first detailed written and drawn descriptions of the countryside.⁶⁶¹

However, the lack of such evidence for the present study area presents only limited information in terms of the earliest boundaries. Regrettably, there is no direct documentary source which would describe the boundaries of Kecskemét, yet, there are three perambulation charters containing references to the neighbouring settlements, namely the perambulations of the villages Szentkirály from 1354,⁶⁶² and Ágasegyháza from 1359;⁶⁶³ besides, the perambulation of Cegléd, the neighbouring market town, from 1368,⁶⁶⁴ whose perambulation was renewed in 1460.⁶⁶⁵ There are further perambulation data from the area, for instance the perambulation of Esső village from 1385,⁶⁶⁶ the perambulation of Felalpár and Lak from 1488,⁶⁶⁷ and the description of the boundary between Mizse and Vacs from 1521.⁶⁶⁸ Among these sources, the Cegléd perambulation charter contains direct reference to Kecskemét, as at one point they had a common boundary in that period. Besides, in 1353 *possessio Ágasegyháza* was located *prope possessionem Ketskemet*. In addition, at latest from the mid-sixteenth century, the deserted village land of Ágasegyháza belonged to Kecskemét (the fields were managed by Kecskemét citizens). The territory of Szentkirály became also deserted somewhat later, and was attached to Kecskemét, in the first half of the seventeenth century. Thus, in a broader context, these data can be presented to demonstrate the typical boundary marks of the study area.

The setting of the earliest boundaries had most probably been influenced by the geo-environmental character of the area. There are basically three types of such natural features in the documents: lakes (*lacus Gyegyefu* and *lacus Zarvastow* at Cegléd in 1368; *vallis wlgo Zek dicta* - 1359, Ágasegyház- this last one might be a temporarily dry alkali lake), and numerous sand dunes (*mons sabulosus vulgo homok* -1359 Ágasegyháza; *monticulus Zaarhomok*, *monticulus Hoziuhomok nominatus*-1368 Cegléd) are cited, besides additional named mounds or “hills” are denoted, such as *monticulus Zaarhomok* and *mons Bercelhegye* in 1368, or *monticulus Feketehalom* and *monticulus Kéthalm* in 1359 at Ágasegyháza, some of which might have been prehistoric tumuli (Fig 205).

⁶⁶¹ About medieval boundaries, see Maksay, *A középkori magyar falu településrendje*; About the shifting of the communities: Makkai, *Östliche Erbe und westliche Erbe*; László Földes, “Telek és költözködő falvak a honfoglalás és Árpád-kori magyarság gazdálkodásában” [The toft and the [shifting moving] communities in the economy of the Árpáadian Age Hungary], in: *Nomád társadalmak és nomád államalakulatok*, ed. Ferenc Tőkei, (Budapest: Akadémiai Kiadó, 1983), 327-319. Laszlovszky, *Einzelhofsiedlungen*.

⁶⁶² Gyárfás, *A jász-kunok*, vol. 2, 490-492.

⁶⁶³ Gyárfás, *A jász-kunok*, vol. 2, 498-500.

⁶⁶⁴ Bártfai-Szabó, *Pest megye*, 84-85.

⁶⁶⁵ MOL DI 15446

⁶⁶⁶ Benedek-Kürti, *Bene, Lajos és Mizse oklevelei*, 11-12.

⁶⁶⁷ Gyárfás, *A jász-kunok*, vol. 2, 697-699.

⁶⁶⁸ Benedek-Kürti, *Bene, Lajos és Mizse oklevelei*, 38-42.

Among natural boundary marks, trees represent a special transition between artificial and natural signs, as usually the chosen species are marked by special engravings or some artificial signs are put to the tree.⁶⁶⁹ There is one reference to a noted tree in the perambulation of Cegléd from 1368 called *farkasakazthokurtuel* ('farkasakasztókörtvély', literally meaning "a pear tree, where a wolf was hung"), besides, in the same document, the oak woodland at the triple border of the three market towns of Cegléd, Kecskemét and Kőrös are also mentioned (*una sylva tulherdew dicta*) (Fig 206). Most possibly further parts of this wood are described in the area in 1521, when the boundary between Vacs and Mizse led through *sylva Zemere erdeje vocata* ('through the wood of Zemere'), and *prope Sylvam Toth Benkew Erdeje on loco háth* ('next to Toth Benkew's wood').⁶⁷⁰

The boundary led *ad unum parvum monticulum inter parvum virgultum habitum* at Szentkirály in 1354, and the perambulation of Esső village from 1385 contain more details on arboreal vegetation: the boundary passed *per superiorem finem silve Wakoufaya*, later, there were two boundary marks near a shrubbery called *Thywys* ('thorny'), later, the boundary crossed *inter duos monticulos juniperosos Iwantarya nuncupatos* ('between two juniper (*juniperus communis*) covered hills called Iwantarya'), and another boundary mark was defined as being *rubetus Rekettye dictam* ('rekettye' means 'gorse').⁶⁷¹ Additional data comes from 1451, from the surroundings of Bugac, when, the boundary led along the *silva and virgultum Kewres between the possessions of Stephanus Magnus de Harka and Blasius Kalaz*.⁶⁷²

Turning to artificial boundary marks, the most frequently mentioned signs are artificially built earthen mounds, referred to as *meta terrea*, which might have stood alone, but double and even triple mounds are mentioned. One part of these mounds is without any further distinguishing elements, but some of them are assigned various characteristic elements, such as an iron knife (*meta terra in qua est ferrum unius cutelli*- 1359, Ágasegyháza), iron arrowheads (*meta terrea in qua sunt duo sagittarum ferra*-1359, Ágasegyháza), a bright glass cup (*in qua...unum pocarium seu fenesueg dictum...* 'fényes üveg'-1359, Ágasegyháza),⁶⁷³ or stones (*meta terrea in qua sunt tres lapilli parvi*- 1359, Ágasegyháza) (Fig 207).

Additional boundary markers were ditches (*inter Kéthalm et Ágasegyház circa quoddam fossatum est...* -1359 Ágasegyháza; *unum fossatum Apachaoromya*- 1368 Cegléd), ruined churches (*unam ecclesiam lapideam ruptam Cheke nominatam in honorem B. Virginis constructam*- 1368 Cegléd),

⁶⁶⁹ Takács, *Határjelek*, 40-51. Péter Szabó, *Woodland and Forest in Medieval Hungary*.

⁶⁷⁰ Benedek-Kürti, *Bene. Lajos és Mizse oklevelei*, 41.

⁶⁷¹ Benedek-Kürti, *Bene. Lajos és Mizse oklevelei*, 11-12.

⁶⁷² Bártfai-Szabó, *Pest megye*, 199.

⁶⁷³ The word 'poculum' means a cup, or a goblet. see: *Magyar oklevélszótár. Régi oklevelekben előforduló magyar szók gyűjteménye* [Hungarian charter dictionary: a collection of Hungarian phrases that are quoted in old documents], collected by István Szamota, edited by Gyula Zoltai, (Budapest: Hornyánszky Viktor Könyvkereskedése, 1902-1906), 775.

roads (*via, magna via, via publica*), or wells (*puteus Meneskwth- 1385-Esső, Menewscuta-1451, near Bugac, fontem Pozthokwt- 1488 Lak, prope parvum Thasy kút dictum-1521, Mizse*).

The data from perambulation charters indicates that the boundary markers were similar to those markers known from other parts of the Carpathian Basin, however, the lack of arable fields is conspicuous in the documents. Though it is difficult to say, whether the landscape features described in the documents, for instance the presence of wooded areas, the extended sandy fields, or the lack of arable lands were peculiar or general traits of the area, or if these features were typical only in the boundary zones of the settlements, or whether they were characteristic in the given period when the descriptions were written.

At a more general scale, both nucleation and dispersion influenced the changes in the late medieval - early modern boundaries of the communities, as in many cases the territories of the deserted villages were integrated into the lands of the developing market towns or villages, which used deserted lands as expansion zones for their economic systems. Perhaps the best example to present the dynamics of this period is to show how the market town Kecskemét extended its borders from the fifteenth century through the early modern period. The available sources suggest that there were three main periods or phases in the extension of the town boundary, which obviously correspond to the main desertion waves in the area, namely from the second half of the thirteenth to the early fifteenth century, around 1526, and during or after the fifteen-years war period (after 1591).

In the early fifteenth century, the documentary sources suggest that Kecskemét lay south of Nagykőrös, that Barabásszállása village was to the north-east, Szentlőrinc village to the east, Pálka village to the south-east, the Cuman settlements of Matkó and Köncsög to the south, the villages of Ágasegyháza and Kerekegyháza to the west, and two further Cuman settlements lay in the north-west areas, namely Bene and Lajos (Fig 208). According to a document from 1456, by that time the town had already incorporated the territories of six deserted village lands, namely deserta Juhászegyház, Koldus egyház, Kolos egyház, Hetyn egyház, Ballóság et Terech egyház, which lands by that time constituted part of the settlement, thus represent the earliest phase of boundary growth.⁶⁷⁴ Seemingly, the deserted villages had lost their separate legal character, as well as their boundaries.⁶⁷⁵ Yet, Ballóság and Juhásztelek are listed among the individually recorded deserted village lands in the Ottoman defter rolls in 1562, thus, evidently, despite the amalgamation of the deserted village lands, the memory of their former independence was preserved.

⁶⁷⁴ Hornyik, *Kecskemét gazdasági*, 11-12, 96., V. Székely, *Kecskemét az Árpád korban*, 66.

⁶⁷⁵ This scheme can also be detected in case of Cegléd, when, in 1368 and in 1460, the perambulation charters name four deserted churches among the boundary marks, where the names of the deserted villages are also given which points to the fact that these deserted village lands similarly faded into the boundary of the developing market town.

The sixteenth and especially the seventeenth-centuries are typified by the further expansion of Kecskemét's authority over deserted lands in the surrounding area. Ottoman tax registers describe that in 1546, five deserted village lands were managed by the citizens of Kecskemét, namely Péteri, Matkó, Monostor, Páhi, Ágasegyház. In the 1559 and 1562 tax rolls it was documented that numerous puszta lands were managed by the people of Kecskemét, namely Ágasegyháza, Bugac, Borbásszállás, Félegyháza, Köncsög, Matkó, Monostor, Bábon, Páhi and Zomok.⁶⁷⁶ These villages were presumably all “freshly” abandoned before or around the time of the Ottoman occupation, as it was discussed in details in Chapter 4 on the development of the late medieval settlement network (Fig 209).

The period of the fifteen years' war between 1591 and 1606 brought a further significant wave of settlement desertion, providing extra opportunity to expand agricultural production zones. From the 1670s, the following puszta-lands were used by the town: Adács, Ágasegyház, Baracs, Bene, Borbásszállás, Bugac, Csengele, Félegyháza, Ferencszállás, Jakabszállása, Kerekegyháza, Kisbalázs, Kigyós, Kisszállás, Majsa, Matkó, Móricgátja, Monostor, Orgovány, Páka, Szank, Szentlászló, Szentgyörgy, Szentkirály, Szentlőrinc, and Pusztavacs, rented between 1676-1684 by wealthy individuals, and from 1693 by the town community. By the late seventeenth century, the series of the rented predia was completed with Tömörkény, Pusztaszer, Esőd, Máma, Köncsög and Bócsa possessions were individually rented from their lords by wealthy citizens (Fig 210).⁶⁷⁷

The puszta-empire remained under the authority of the town in the first decade of the eighteenth century, moreover, it was expanded even further, after the Jassian-Cuman District was sold to the Teutonic Order in 1702. From this date the following territories were rented by Kecskemét: Szentlászló, Orgovány, Szank, Félegyháza, Kerekegyháza, Galambos, Csengele, Móricgátja, Matkó, Jakabszállás, Pálka, Ferencszállása, Majsa, Pálos, Kisszállás, Üllés, Kigyós, Átokháza, Bene, Csólyos, Kömpöc, Ágasegyháza and Boldogasszonyháza. Parallel, eleven more deserted village lands were managed by [the individual] residents, namely Borbásszállása, Felsőalpár, Szentkirály, Szentlőrinc, Bugac, Vacs, Tatárszentgyörgy, Ágasegyháza, Újfalu, Monostor és Pusztaszer.⁶⁷⁸

This developing expansion towards the puszta areas was suddenly halted by the redemption of the Cumans and the Jazyges in 1745,⁶⁷⁹ and a major plague epidemic in 1739-1740. At last, the

⁶⁷⁶ Ferenc Szakály, *A hódolt megye*, 350-354.

⁶⁷⁷ Mészáros, *Kecskemét gazdasági élete és népe a XVI. század közepén*; Szakály, *A hódolt megye*, 481. Interestingly, *Monostor* is missing from the list of rented lands; however, this *predium* was continuously managed by Kecskemét citizens, as is it documented in the regulation of István Koháry, landlord of the town from 1677. *Szabályrendeletek*, 19-22.

⁶⁷⁸ Hornyik, *Kecskemét gazdasági fejlődése*, 54, 65; *Kecskemét története*, 365-366.

⁶⁷⁹ The Cuman and Jazyg population were granted collective noble privileges after their immigration to the Carpathian Basin by the laws of King Ladislaus IV, which rights preserved their noble status throughout the medieval and early modern period. After the close of the Ottoman wars around the turn of the eighteenth century, the returning Habsburg

territory of the town was further reduced in the nineteenth century. Among the predia, only Ágasegyháza, Borbásszállás, Szentkirály, Felső Alpár, Pusztaszer, Bugac and Monostor remained in the possession of the settlement, and this bulk was extended to the territories of Szentlőrinc and Kisbugac in 1901 (Fig 211).⁶⁸⁰

Concerning the borders of the deserted puszta-lands, it is important to point to the fact, that even if these lands became integrated into the territory of Kecskemét from economic or administrative point of view, all deserted village lands preserved their independent legal status, as before the late eighteenth century they were rented from their various overlords. During the Turkish times, both the Ottoman state and Hungarian landlords kept account of their possessions in the study area. Hungarian landlords, even if they had only limited or no physical access to their properties, profited from the letting of the deserted lands.

When the Ottoman forces were expelled from the Hungarian territories, there are numerous cases when the legal status and the physical borders of the settlements were revised, reinforced, or disputed by the returning Hungarian landowners, which clearly demonstrates that especially the borders of the deserted village lands were contested. There is a considerable set of documentary sources from the eighteenth century, which deals with the disputed borders, sometimes providing a detailed description of the “old” boundary marks. The eighteenth century also produced the earliest series of detailed county- and settlement-scale maps, one part of which was distinctly made as appendices for such legal controversies.

Interestingly, in many cases not only the eighteenth-century boundary marks, but medieval place names are apparent on nineteenth- and also on twentieth-century maps, which suggest the long-term continuity of at least one part of the boundaries as well as boundary marks.

Thus, a further challenge for the present study was to attempt to connect documentary sources and topographical representations and to assess whether these boundary features can be detected in the present landscape.

Let me mention some examples from the study area to demonstrate the survival of boundary marks. Taking Kecskemét as the first example, a legal case has to be mentioned from 1680, when the dispute between Kecskemét and its northern neighbour, Lajos resulted in the common borderline being investigated.⁶⁸¹ In this procession, the common boundary mark of Kőrös, Lajos and Kecskemét was described as a triple mound. This triple mound is represented on the Third Ordnance Survey and later maps as a benchmark, thus I attempted to identify these features in the

emperors withheld the privileges of Cumans and Jazygs, sold their lands to the Teutonic Order in 1702, and ranked the Cumans and Jazygs among ordinary peasants. The inhabitants of the Jazyg and Cuman Districts started a civil movement to collect money to purchase their lands and privileges. This action, the re-acquisition of ancient lands took place in 1745, and it is called the Redemptio.

⁶⁸⁰ Juhász, *A Duna-Tisza közti migráció és hatása a népi műveltségre*, 252.

⁶⁸¹ Benedek-Kürti, *Lajos, Mizse és Bene oklevelei*, 99-102.

framework of a field survey (Figs 212-213). Interestingly, the three mounds are in relatively good repair today, they are around 2-2.5 m high. Further on, following the borderline between Lajos and Kecskemét, it turned out that several smaller earth heaps can be identified along the former border, and also a stone pillar was detected, presumably also a boundary mark from the eighteenth (?) century (Fig 214).

The earliest detailed topographic representation of Kecskemét's borderlines comes from a survey map dating from 1770. On this depiction the town borders the deserted villages of Lajos, Bene and Kerekegyháza from the north, the oppidum of Nagykőrös, the deserted village of Barabásszállása from the east, the deserted villages of Szentlőrinc and Páka from the south, and the deserted villages of Köncsög, Matkó and Jakabszállása from the south. The separate legal character of the deserted village lands such as Barabásszállása, Köncsög and Matkó, which were managed by the citizens of Kecskemét at latest from the sixteenth century, can be clearly exemplified by this map.

Unfortunately, there are no descriptions or naming on this map respecting the boundary marks; still, it is visible that the boundary sites were most probably physically surveyed and consciously delineated, as there are various references in the town registers that the borderlines were regularly visited and controlled by the magistrates, for example in 1785 the renewal of borders between Kecskemét and Lajos was attended by two members of the town senate.⁶⁸²

Moreover, the town records clearly show that the town magistrates were involved in the boundary-matters of the rented deserted village lands, for example there is a reference that in 1733, the controversies concerning the boundaries of Bugac and Mörícgáttya were settled by the town magistrates, who described and confirmed the boundary marks in detail, and mediated between the contestant parties.⁶⁸³ The town magistrates were also involved in the perambulation of the Bugac

⁶⁸² MJ II, 273.

⁶⁸³ MJ II, 97-98. "...hanem el kezdvén annyiszor említett Puszták [Bugac és Mörícgáttya] közt egy Halmon, mellyen régi Roka Lyukakis [sic] vagynak és az Kopasz Halasinak neveztek űk, onnan Dél felé menvén mint egy kétszáz lépésnyire vagyon egy Füzfának most is kisarjazott töve, mely Füzfa ennek előtte is Határnak tartatott, onnat mintegy két Dülő földnyire mégis Dél felé menvén a mely Semlyek controversiában volt, azon Semlyek között Harom Rekettye Bokroccka, onnat mint egy Dülő Földnyire mégis Dél felé menvén találkozik egy Semlyék, kibén alkalmas darab helyen fekvő Rekettye Bokor vagyon, ezen Bokornak az alsó vége tartozik Határnak, onnat mégis Délre menvén mint egy négy Dülő Földnyire [sic], ott vagyon egy magas Kerek Halom, mely Halom tartatik Hármás Határnak, ugy mint Moricz gattyai, Bugaczi és Szanki Puszták határainak, ezen Hatarokban a Parsok minden részről megnyugtattván elméjeket, a mellett a minemű rövidséget egymásnak tettek, azok irántis Atyafiságosan meg edgyeztek és azon meg edgyezéseket kéz bé adással [sic] megerősítettek."

[Proceeding among the borders of the aforementioned deserted lands [Bugac and Mörícgáttya] through a mound with fox-holes that is named as *Kopasz Halasi*. Then, turning to the south, at a distance of approximately two-hundred steps there is the sprout stool of a willow tree which tree had been defined as boundary-mark previously. South from that point in a distance of two furlongs, there are the controvered swamps, among them three small shrubs. Thence turning somewhat to the south, from that point in a furlong's distance there is a swamp with a goarse-shrub whose souther part is the border. Proceeding to the south from there, in approximately four-furlong distance, there is a high, round mound, which mound is called Triple Border, being the boundary marker of *Moricz gattyai*, *Bugacz* and *Szank*. These borderlines were agreed by the parties.]

borders in 1785.⁶⁸⁴ Luckily, predium Bugacz was topographically surveyed in 1783, thus the documentary sources from 1733 and 1785 can be compared to this early map (Fig 215).

Additional examples for the identification of boundary marks can be presented for instance, in the case of Szenkirály, where, the perambulation charter from 1354 mentions various types of field boundaries, mostly earth heaps (*monticuumo wlgo holm nominatum; meta terrea*) and roads (*via, via magna*) most of which are identifiable from the earliest maps, and some can even be detected in today's landscape.⁶⁸⁵ For instance, the earth mound, which divided possessio Wrsed and villa Zentkyral in 1354, can be identified with the later Kenyérváró halom, which is represented on historic maps (Fig 216).⁶⁸⁶

Similar continuous features can be detected in the landscape at Monostor, where no such detailed descriptions survived, but toponyms, such as Hármashatár ("Triple Border") at the borderland of Monostor, Móricgátja and Galambos can be traced today (Fig 217).

The limits of the present study only allowed the test-survey of boundary marks in the study region. Still, the research resulted in much more positive consequences and far better detectable survey results than it was predicted at the beginning of the survey. The outcomes of the present survey showed that it is worth dealing with the survival and field survey of pre-modern boundary marks, since they seem to be among the rare surviving and continuous pre-modern landscape features in the region. At last, I presume that the systematic collection, identification and detailed interpretation of pre-modern boundary marks could be an important research task for future historical-archaeological investigations.

8.3 THE FIELD SYSTEM

According to general theories on the development of agriculture in Hungary, the complex social-economic transformation processes in the thirteenth-fourteenth century period brought considerable change to the agricultural landscape. In the context of land use, the introduction of the heavy plough and the permeation of the regulated rotation systems most possibly encouraged the laying out of more carefully plotted longer stripes of furlongs. These replaced the irregularly dotted smaller squares of former centuries, a change which must have had a remarkable effect on the visual appearance of the countryside.

Although the exact date of when these innovations came into common use in the Carpathian Basin is not fully known yet, and nor are the processes by which they arrive or the manner in which

⁶⁸⁴ MJ II, 273.

⁶⁸⁵ Ferenc, *Szentkirály évszázadai*, 33-34.

⁶⁸⁶ "... *monticulo wlgo holm nominatum, in cuius cacumine duas metas terreas a parte possessionis Wrsed distinguentes...*" [a small hill called commonly mound, in whose heap are two earthen markers from the direction of Wrsed].

they developed across the Basin, scholars have defined the principal channels of the technical development and outlined those areas and social groups that adopted and applied these innovations.⁶⁸⁷ Yet, the appearance of the new systems did not mean the disappearance of other techniques, such as the regulated fallow system, as there is numerous evidence in the documentary sources to indicate that the rotation systems were not introduced in many parts of the country, and the rotation systems were actually used in conjunction with the fallow system in the fourteenth-sixteenth century, even within the border of a single settlement.⁶⁸⁸ The surveys of the historians Márta Belényesy and Ferenc Maksay suggest that there was a distinction among the fields in the context of their location as well. In many cases those arable infields, which had become both legally and physically the unified pertinences of the peasant plot, were likely to have been managed in a more intensive, rotation system, while for most of the outfields, whose lands were periodically redistributed among the members of the community, in many cases the fallow system remained the main framework of production.

Consequently, there was no linear development from a non-regulated fallow system to a regulated fallow system to two- and three-crop rotation schemes as some earlier studies suggested. The written evidence demonstrates the existence of various types of field systems in use at the same time within the territory of one settlement.⁶⁸⁹

In the context of the Danube-Tisza Interfluvial Region, where documentary sources are so scarce before the eighteenth century, ethnographical studies have had a major influence in the study of field systems.⁶⁹⁰ These surveys classified the evolution of contemporary settlement and management systems and assumed that there had been a continuity of the ‘more primitive’ or ‘archaic’ fallow system and land management techniques from the fifteenth to the nineteenth century, based on the fact that both in the fifteenth-sixteenth century, and in the eighteenth-nineteenth century large-scale extensive animal husbandry was the dominant branch of agricultural production.⁶⁹¹ Another commonly held belief was that the ecological environs and the vegetation of

⁶⁸⁷ It seems that monastic orders and German settlers had a major role in this process; according to the latest investigations, this “package” of new agricultural technology arrived in the thirteenth century. The earliest data on the three-field rotation system comes from the 1280s, and the earliest heavy plough find dated to the thirteenth century was discovered in southern Transylvania, where massive blocks of German settlers, called Saxons, lived. See: Belényesy, *Angaben*, Laszlovszky, *Field systems*.

⁶⁸⁸ Belényesy, *A parlagrendszer*, 338.

⁶⁸⁹ Belényesy, *A permanens egymezős*, 98-100; Maksay, *A középkori magyar falu településrendje*, 166.

⁶⁹⁰ Some relevant literature: István Balogh, “Adatok az alföldi mezővárosok határhaznájához a XIV-XV. században (Debrecen határának kialakulása)” [Data on the field system of market towns in the 14-15th century: the development of Debrecen’s boundary] *Hajdú-Bihar Megyei Levéltár Évkönyve* 3 (1975): 5-23; István Balogh, “Pusztai állattartás és legeltetési rend” [Animal husbandry on the Puszta and the order of pasturage] *Biharea Museul tarii Crisuliror Oradea* 18(1991): 109-116; *Gazdálkodás az Alföldön – Földművelés* [Land management on the Great Hungarian Plain-Arable farming], edited by László Ferenc Novák (Nagykörös: Pest Megyei Múzeumok Igazgatósága-Arany János Múzeum, 2002); *Az Alföld gazdálkodása – Állattenyésztés* [Land management on the Great Hungarian Plain- Animal husbandry], edited by László Ferenc Novák (Nagykörös: Pest Megyei Múzeumok Igazgatósága-Arany János Múzeum, 2004).

⁶⁹¹ Márta Belényesy, “Viehztucht und Hirtenwesen in Ungarn im 14. und 15. Jahrhundert”, in: *Viehztucht und Hirtenleben in Ostmitteleuropa : ethnographische Studien*, edited by László Földes, (Budapest: Akadémiai Kiadó,

the area did not change over time, and the Interfluve area was a woodless, sandy or grassy-type puszta-environment in the medieval period, as it was described and mapped from the eighteenth century.⁶⁹²

Accordingly, discussions on land management in the Interfluve Region assumed that here, from the early fourteenth century, land management was basically defined by large-scale animal husbandry, which gave a special direction to local land use practices in contrast to other parts of the kingdom where arable farming played a decisive role in the economy in the late medieval period. The immigration and settlement of Cumans is a further element that has to be considered when speaking about the emergence of large-scale animal husbandry; partly because of the Cumans' lifestyle, which surely included the highly sophisticated traditions and developed knowledge of large-scale animal breeding. According to some scholarly opinions, the Hungarian Grey cattle was a descendant of the beasts that arrived into the Carpathian Basin with the Cumans in the thirteenth century, which were perhaps cross-bred with local animals, and were further selected.⁶⁹³ The expansion of large-scale animal husbandry is strongly associated with the late medieval desertion and nucleation process, as these transformations resulted in the relative abundance of available agricultural lands. In that way the field system of the area is often described as a puszta-economy from the turn of the sixteenth century, meaning that farming was fundamentally based on the use of deserted village lands (puszta = 'deserted land').⁶⁹⁴

It has been argued that these deserted village lands were managed using the so-called regulated fallow system, which best harnessed the ecological capacities of the area and the needs of the market. In the modern period, this system has a four- to eight-year rotation scheme. The fields are separated into two parts; one part of the furlongs are ploughed and cultivated without break, while the other part of the land is left fallow and used as a pasture or a meadow.⁶⁹⁵ The fallow furlongs transform quickly into grasslands on the Great Plain region, and so these fields brought economic profit as pasture land without any investment during the fallow years. The movement of large herds of animals from spring/summer pastures to autumn/winter fields required deliberation

1961), 13-82; Márta Belényesy, "Állattartás a XIV. században" [Animal husbandry in the 14th century] *Néprajzi Értesítő* 38 (1956): 23-57.

⁶⁹² Beluszky, A Nagyalföld, Tibor Bellon, *A nagykunsági mezővárosok állattartó gazdálkodása a XVIII-XIX. században* [The large-scale animal husbandry of market towns in the nagykunság Region], (Karcag: Karcag Város Önkormányzata, 1996; online version at the Terebess Ázsia E-Tár: <<http://www.terebess.hu/keletkultinfo/bellon.html>> (as accessed on 15 May 2011.)

⁶⁹³ There are various hypotheses about the origin of the Hungarian Grey. László Bartosiewicz, "The Hungarian Grey Cattle: A Traditional European Breed" *FAO Animal Genetic Resources Information* 21 (1997) 49-60; Sárosi, *Hungarian Grey Cattle on the European Market*; Edit Sárosi, "Hungarian grey cattle on the European market between the 15th and the 17th century". In: *Ruralia 8. Processing, Distribution of Food. Food in the Medieval Rural Environment*, edited by Jan Kläpštè and Peter Sommer, Turnhout: Brepols, 391-398.

⁶⁹⁴ Edit Sárosi, "The Development of 'Puszta' Lands in the Danube-Tisza Interfluve Region" in: Jan Kläpštè and Peter Sommer (eds.), *Ruralia 6 - Medieval Rural Settlement in Marginal Landscapes*, (Turnhout: Brepols, 2009), 403-413.

⁶⁹⁵ Belényesy, *A parlagrendszér XV. századi kiteljesedése Magyarországon*, 321-345; Belényesy, *Az állattartás a XIV. században Magyarországon*, 23-59.

and planning by the community, to avoid issues surrounding the damaging of the arable fields by the animals. Studies have indicated that this type of management had two major advantages; on the one hand the grazing animals provide continuous manure even on the faraway puszta-fields, maintaining the quality of the soil and, on the other hand, the available areas for grazing increased significantly.

Moreover, the presence of fallow system is connected to the isolated farmstead system, as ethnographers argue that the free-status “field gardens” and later modern farmsteads lands were exempt from compulsory order of crop rotation as the lands were cultivated according to individual needs. Thus it has been argued that crop rotation is incompatible with farmstead-economy, thus unimaginable in those areas where isolated farmsteads were present.⁶⁹⁶

Such generalized retrospective hypotheses of land management practices from the eighteenth-nineteenth century are suitable to model medieval land management but they are not suitable to use as the basis for reconstructing medieval practices without further qualification.⁶⁹⁷ The appearance of similar patterns in agricultural production in two separated historical periods is not the basis for arguments of continuity. As I will discuss in relation to the context of Kecskemét, one can use other approaches, including historical ecology, to widen the discussion and the observations.

According to Márta Belényesy, there were two major factors that influenced and determined medieval agricultural management systems, namely the legal framework of land tenure, and the field system, especially the methods employed to prepare the fields for cultivation (i.e. the type of plough and the frequency of ploughing).⁶⁹⁸ It is therefore relevant first to assess the data on the legal frameworks of land tenure in the study area. To start with, it is of foremost importance to observe that the market towns, just like the larger body of villages they emerged from, were private/seigniorial possessions, and that the inhabitants were considered as peasants by law; accordingly, the basic framework of agricultural production remained the peasant plot (*sessio*), whose management was regulated. This resulted in an entitlement to use a defined part of the village land, whose management was a conscious decision of the community, which served the

⁶⁹⁶ Báth, *A magyar nyelvterület településformái*, 31.

⁶⁹⁷ Some of the most important literature on the topic: Károly Tagányi, *A földközösség története Magyarországon* [The history of communal land management in Hungary], (Budapest: , 1894); János Bak, “Zur Frühgeschichte ungarischer Landgemeine”, in: Theodor Mayer, ed., *Die Anfänge der Landgemeinde und Ihre Wiesen*, (vols 1-2, Konstanz-Stuttgart: , 1964), vol 2, 404-417; Márta Belényesy, “Angaben über die Verbreitung der Zwei- und Dreifelderwirtschaft im mittelalterlichen Ungarn” *Acta Ethnographica Academiae Scientiarum Hungaricae* 5 (1956): 183-188; Márta Belényesy, “Der Ackerbau und seine Produkte in Ungarn in XIV. Jahrhundert” *Acta Ethnographica Academiae Scientiarum Hungaricae* 6 (1958): 265-321; Márta Belényesy, “La culture temoraire et ses variants en Hongrie au XVe siècle” *Ergon* 2 (1960): 311-326.; Márta Belényesy, “Hufengröße und Zugtierbestand der Kläuberlichen Betriebe in Ungarn im 14-15. Jh.”, in: László Földes (ed.), *Viehwirtschaft und Hirtenkultur: Ethnographische Studien*, (Budapest: Akadémiai Kiadó, 1969), 460-502; Földes, *Östiches Erbe und westliche Erbe*; Laszlovsky, *Field systems*; Laszlovsky, *Földművelés a késő középkori Magyarországon*.

⁶⁹⁸ Márta Belényesy, “A földművelés fejlődésének alapvető kérdései a XIV. században” [The basic questions of land management in the fourteenth century] *Ethnographia* 64 (1954): 391.

common good rather than personal interests.⁶⁹⁹ The studies of László Makkai pointed to the fact that the emergence of market towns can be connected to the appearance of unrestricted land ownership of land-parcels, mainly vineyards and pastures, which became the new bases of individual economic production beside the system of peasant plots. Makkai argued that the availability of such free status fields was crucial in the development process of market towns.⁷⁰⁰ In this respect, the desertion of settlements in the late medieval period (thirteenth to fifteenth century) is closely connected to the expansion of market towns, as the documents suggest that most of these free-status fields were found in the deserted lands.

At Kecskemét, both vineyards and pastures were intensely included in the economic production of the town, presumably from the fourteenth-fifteenth century. The system of individually managed vineyards and private arable fields as well as pastures is documented as an intricate and developed routine from the sixteenth-seventeenth century onwards, which suggest that the practices and techniques developed much earlier. Concerning the topography of private tenements, it is important to note that the vineyards were exclusively located in the close surroundings of the city of Kecskemét, which is in the original core territory of the town, while private arable fields and mainly pastures were located both in the core areas and at the rented puszta-lands. Unfortunately, little is known about the details of how the deserted lands were leased, as no such contracts or documents survived. In the documented period, the deserted lands were supposedly rented from various noble landowners, and the tenements were prolonged yearly.

The first deserted lands that the market town incorporated in the fifteenth century were most probably part of a larger body of the royal property in the Danube-Tisza Interfluvium, which included Kecskemét in the previous period. The merging of the six deserted villages which are mentioned as appurtenances of Kecskemét in 1456 was perhaps the outcome of a conscious inner reorganization of land and management initiated by the royal court as owner of the settlement. Along with the expansion of large-scale animal husbandry, the “competition” for available free or deserted tenements began in the fifteenth century, however, the proprietary status of the area basically changed as the territory was owned by various Cuman and Hungarian landowners by that time. Thus, the deserted lands could only be acquired by purchase or leasing.

To illustrate this tendency, I would like to highlight a reference concerning land management. Although this document is quite often referred to in historical discussions, especially in connection with the settlement and pastoral lifestyle of the Cuman population, it has hardly been analyzed from the land-use perspective. The charter was issued in 1423 by King Sigismund, when

⁶⁹⁹ Tagányi, *A földközösség története Magyarországon*; Szabó, *A középkori magyar falu*, 65-72.

⁷⁰⁰ Makkai, *A mezővárosi földhasználat kialakulásának kérdései*.

the Cumans, moving with their animals between their lands at *Predium Mindzenth et Bodogahaza*⁷⁰¹ and *Praedium*, videlicet Gengelteleke, Chokashege, Haraztya, Lamytha, Belchekorhan, Kun Jakab horhan, Vetewch, Mama hamca, Zombathkutha et Chederhamka, were disturbed and impeded by the two neighbouring oppida, Kecskemét and Kőrös. When using their lands, hay-meadows, and forest-pastures,⁷⁰² the Cumans accused the citizens of the towns of grazing and tramping on their crops and arresting their people.⁷⁰³

To understand the situation, it is worthwhile recalling that in the northern-central part of the Danube-Tisza Interfluvium Region along with Cegléd and Nagykőrös, Kecskemét was among the oppida to encourage the integration of deserted village-lands into its economic system from the early fifteenth century.⁷⁰⁴ However, the lands of the three market towns were mainly surrounded by the possessions and settlements of the Cumans who, in the first decades of the fifteenth century were possibly in a transitional phase, when the nucleated village type settlements emerged from the larger bodies of dwellings of the former period. The charter therefore depicts the ongoing process of the Cumans' integration, allows for certain inferences to be made concerning land management:

On the basis of the place-name evidence, it is partly possible to locate the zone of controversies: the Cuman lands were located in the area of Borbásszállás, and the place names such as Chederhamca (mapped as Csödörhomoka on the Second Ordnance Survey) or Chokashege (mapped as Csókás hegye in 1740) suggest that one part of deserted predia were in fact situated between the boundary or interest zone of Nagykőrös and Kecskemét. Furthermore, *predium Haraztya* is likely to be identical with *rubetum Harazth* mentioned in 1405 as being located on the borderland of Kecskemét, Kőrös and Cegléd, and at that time belonged to Nagykőrös (Figs 218-219).⁷⁰⁵

The charter suggests that by the early fifteenth century the Cuman community mentioned here had developed a complex agricultural system, based on arable farming as well as animal husbandry. The text proposes that their fields (pastures?) were scattered in various allotments around the market towns' lands, and that they had to cross the towns' boundaries, when shifting from one pasture to another. The fact that the herds of the two market towns (!) could cause severe damages to the arable fields as well as meadows of the Cumans may indicate a point at which the expanding large-scale animal husbandry of the market towns competed directly with the Cumans,

⁷⁰¹ *Predium Mindzenth* is identical with *Borbás*, or *Borbasszállása*, between Kecskemét and Szentkirály.

⁷⁰² The word '*rubetum*' in medieval Hungarian terminology means a transitional zone between forest and "classic" plain meadow, a scrubland. Péter Szabó, "Hagyományos erdőgazdálkodás a Kárpát-medencében" [Traditional forest management in the Carpathian Basin], in: *Antropogén ökológiai változások a Kárpát-medencében* [Anthropogenic ecological changes in the Carpathian Basin], edited by Bertalan Andrásfalvy and Gábor Vargyas, (Budapest: PTE Néprajz – Kulturális Antropológia Tanszék and L'Harmattan, 2009.), 137-138.

⁷⁰³ Hornyik, *Kecskemét város története*, vol. 1, 201-206.

⁷⁰⁴ Szakály, *A hódolt megye*, 354.

⁷⁰⁵ Bártfai-Szabó, *Pest megye*, 121 (Dl. 9037).

who had focussed on the breeding and export of cattle and sheep in preceding decades. Such an aggressive policy by the towns also highlights that the key factor of economic prosperity in this period was the annexation of available deserted village lands to increase the possible cultivation areas. It may also be that the aim of the towns was to get hold of the neighbouring Cuman possessions; the first step towards this might have been their attempt to exercise jurisdiction over them.⁷⁰⁶

Apart from this, it can also be supposed that the shifting herds of the Cumans caused other difficulties to the two market towns; namely that the bordering fields, which were owned partly by the Cumans and partly by the towns' citizens, were not cultivated in the same system, and was probably a source of constant tension among the neighbouring owners. Consequently, the information can be connected to the appearing or intensifying efforts of the communities to reorganize land use, when, possibly the widespread cultivation fields were concentrated into more regular field systems.

In the context of contemporary ecological environment, it is important that the charter provides indirect reference to the vegetation of the area: *Haraztya* (in Hungarian: 'haraszt', 'brushwood', in medieval Hungarian context meaning wooded pasture), *Mama hamca* ('Mama's sand'), and *Chederhamka* ('csődörhomoka', 'stallion's sand') are the most relevant names cited, and suggest that the disputed borderland territories were most probably wood pastures and sandy (grass)lands. Along with the increasing volume of large-scale animal husbandry, these lands became valuable areas whose tenure was surely of strategic importance.

The international market for livestock further increased in the sixteenth century, and the possession or the management of pastures became a critical factor of development. However, the circumstances of the breeding changed significantly when the main breeding areas were occupied by the Ottoman forces. The documentary sources suggest that Kecskemét was among the first settlements to obtain the deserted village lands as tenements, as it was previously described. The leased lands were recorded as if being in the common ownership of the Kecskemét citizens, whose interest was represented and the management was controlled (but not determined) by the town magistrates, who often acted as the collective proprietor of deserted lands. It is notable that there are abundant references to special areas (especially hayfields, arable lands and forests) which remained under the direct authority of the town both in the infields and at the rented deserted lands (az Úr rétín az Város füvéből való kaszálás 'mowing from the Town's grass at Úrrét' (1594),⁷⁰⁷ az Város

⁷⁰⁶ As far as *Chederhamca* merged into the territory of Kecskemét, and Borbásszállás became one of the most important rented lands of the town, besides, Csókás became part of Nagykörös, this effort was successful in a long term perspective.

⁷⁰⁷ MJ I 38 The name "Úrrét" (that is the "Lord's meadow") may be considered as reflecting previous ownership-unfortunately there is no written sources on the origin of this place name.

Földéről való Gabona ‘Cereals from the Town’s fields’ (1691)⁷⁰⁸ város juhászata ‘the sheep flocks of the Town’,⁷⁰⁹ város erdeje ‘the forest of the Town’⁷¹⁰), whose fields were not accessible areas, but were managed by the obligatory labour (socage) of the citizens.

A few puszta lands were leased by private companionships of wealthy citizens.⁷¹¹ In 1559, the Ottoman tax lists recorded that Kecskemét citizens had dwellings (szállások) at the deserted lands Borbásszállás, or Bábony.⁷¹² Additional parts of the deserted fields were distributed among the citizens. The first documentary evidence that the magistrates distributed deserted fields (mentioned as elhagyott tanyaföldek és füves kertek) are from the 1590s in Úrrét, Talfája, Ballószeg, Városföld, Matkó and Köncsög.⁷¹³ These lands are located in the closest cultivation zone of the settlement. By the mid-seventeenth century, the town protocols regularly refer to numerous smaller parcels of individually managed lands called gardens or yards (mezei kert).⁷¹⁴ There were three main types of yards: one part was distributed among citizens by the magistrates of the town (városadománya kert), which could be inherited but not sold, and there were ‘purchased gardens’ (pénzen vett kert) as well as ‘inherited gardens’ (őstől maradott kert). The gardens were possessed, inherited, and sold as private property or free leasehold, and they soon became the standard unit of production and the basis of profit-oriented economy in Kecskemét, instead of the peasant plot. This meant that by the seventeenth century the inhabitants of the market town became in fact freeholders of lands, but at the same time they remained iobagiones (tenant peasants) in terms of Hungarian law.

At the same time, the appearance of these individually used garden allotments (mezei kert) marks the gradual realignment in the pattern of land use of the deserted village lands, which resulted in the emergence of the isolated farmstead system. The development and the origins of the modern farmstead system are among the most debated issues of historical and ethnographical studies.⁷¹⁵ In terms of the origin of the system, as it was discussed in Chapter 4, the most relevant scholarly question is related to land management: to what extent the “gardens” and szállás-type temporary dwellings connected to animal husbandry of the fifteenth-seventeenth century around market towns

⁷⁰⁸ MJ I 140.

⁷⁰⁹ MJ I 47-48.

⁷¹⁰ MJ I 34, 50, 53.

⁷¹¹ (Kocsis, 2002 197 Iványosi- Szabó, 1994 75-76)

⁷¹² Káldy-Nagy, *A budai szandzsák 1546-1590*, 90-91, 144-145.

⁷¹³ See MJ I 49, 53.

⁷¹⁴ There are additional examples in the great plain Region for the appearance of such gardens. About this see: Balogh, *Adatok az alföldi mezővárosok határhasználatához; Bárány, Szállások, falvak, városok*, 110-116.

⁷¹⁵ The history of research was summarized by László Solymosi. See László Solymosi, “A tanyarendszer középkori előzményeinek historiográfiája” [The historiography of the medieval origins of the isolated farmstead system], in: *A magyar tanyarendszer múltja*, edited by Ferenc Pölöskei and György Szabad, (Budapest: Akadémiai Kiadó, 1980), 71-96.

can be associated with the classic “tanya” (farmstead) settlements documented in the eighteenth-nineteenth century.⁷¹⁶

Although there is relatively scarce data in the documents on the management and the exact location of gardens in the seventeenth century in context of Kecskemét, it seems that the majority of these lands was situated around the core areas of the town and was managed as arable fields. Sometimes vineyards are also mentioned in or among the gardens, but, animal husbandry is not referred to explicitly.⁷¹⁷ Accordingly, the garden lands were separated from the zones of permanent pastures, which were preferably referred to as nyaraló (summer stall/pasture) or telelő (winter stall) in the documents. In this respect, I presume that the seventeenth century gardens, being individually managed small parcels of lands, can be more or less defined as the forerunners of the modern isolated farmsteads in the context of Kecskemét, while the temporary dwelling of permanent pastures has no documented continuity with or connection to the later isolated farmstead system (Figs 67-68, Fig 220).

Yet, the garden-fields were by and large not inhabited permanently before the early eighteenth century; as the town protocols and regulations refer to the intensifying efforts of town magistrates to regulate and strictly restrain the mass movement of citizens to the garden lands roughly from that period.⁷¹⁸ The stable political circumstances and the increasing demand for cereals, parallel with the decreasing international market for livestock, contributed to the repopulation of deserted village lands and the realignment of land management. Indeed these same trends provided new frameworks for the rapid emergence of the dense network of permanently inhabited isolated farmsteads, which became complex units of individual economic production by the late eighteenth century (Fig 63; Fig 221).

Beside the legal frameworks of land tenement, another major source group relating to field systems are the sources pertaining to agrarian technology. The development of the medieval Hungarian agricultural instruments was summarized by the ethnographer Iván Balassa.⁷¹⁹ Besides, the evolution and classification of the archaeological finds was set up, and the development of agrarian techniques was recently reviewed by Róbert Müller.⁷²⁰

⁷¹⁶ Balogh, *Tugurium-szállás-tanya*.

⁷¹⁷ There are references to “grassy gardens” (*fűves kertek*), which can be related to hay production, thus indirectly to livestock breeding, but there are no references on details, thus it is not clear whether these meadows were used for domestic purpose or to keep or feed animals for wholesale.

⁷¹⁸ Practically, the background of this sharp prohibition was that the town and also the church lost influence on permanent inhabitants of the farmsteads, it was more and more difficult to collect taxes and control public safety.

⁷¹⁹ Iván Balassa, *Az eke és a szántás története Magyarországon* [The history of the plough and ploughing in Hungary] (Budapest, Akadémiai Kiadó, 1973).

⁷²⁰ Róbert Müller, *A mezőgazdasági vaskorszak fejlődése Magyarországon a késő vaskortól a török kor végéig* [The development of agricultural tools from the late Iron Age till the end of the Ottoman Period], *Zalai Gyűjtemény* 19., as accessed on 15 May, 2011 at: <http://www.zmmi.hu/gm/ZGY19/html/Zgy19.htm>

When dealing with such iron artefacts, two considerations should be kept in mind. First, the number of available iron objects is limited due to their deterioration, and considering that this precious material was not simply thrown away but was re-smelted and re-used during the generations. Second, very few such objects had been found in secure dating contexts on excavations in Hungary; most of the artefacts are known as stray finds which makes the dating of the objects based on their find context an almost impossible task, and we must therefore rely on typological dating which, in the absence of firm dates, makes the exercise quite challenging.⁷²¹

Yet, there are numerous iron artefacts connectable to agricultural technology from the Kecskemét area, which were mostly defined and published by Iván Balassa and Róbert Müller:⁷²²

Site	Object Type	Dating	Literature
Kecskemét, Árvaház	short sickle	13 th century	Müller, A mezőgazdasági, 72
Kecskemét area	asymmetrical ploughshare ('ekevas')	13 th century	Balassa, A szántás és az eke, 275-276.
Bugac, stray find from a field survey	asymmetrical ploughshare ('ekevas')	16 th century?	Balassa, A szántás és az eke, 314-315
Kecskemét, Arany Street	asymmetrical ploughshare ('ekevas')	found with 17 th century pottery	Müller, A mezőgazdasági, 72 Balassa, A szántás és az eke, 318.
Kecskemét, Arany Street	coulter ('csoroszllya')	found with 17 th century pottery	Müller, A mezőgazdasági, 72 Balassa, A szántás és az eke, 318.
Kecskemét area ⁷²³	goad ('ösztöke')	16-18 th century(?)	Balassa, A szántás és az eke, 322-323.
Kecskemét area	goad	16-18 th century(?)	Balassa, A szántás és az eke, 323.
Kecskemét area	goad	? medieval	Szabó, Az alföldi, 124. Müller, A mezőgazdasági, 70.

⁷²¹ This research situation is not at all unique in Europe. The *in situ* appearance of such iron artefacts is very rare. Thus for instance the recent discovery of the plough coulter at Lyminge, Kent (excavation of Gabor Thomas, see: <<http://www.archaeologyuk.org/ba/ba118/news.shtml>>) attracts a lot of attention. Some examples for research situation in other parts of Europe see: *Medieval Farming and Technology. The Impact of Agricultural Change in Northwest Europe*, edited by Grenville Astill and John Langdon (Leiden: Brill, 1997); Niall Bardy, "Reconstructing a medieval Irish plough", in: *Primeras Jornadas internacionales sobre tecnologicaagrarian tradicional, Mai 25-9 1992*, (Madrid: Museo Nacional del Pueblo Español, 1994), 31-44; Jan Klapste, *The Czech Lands in Medieval Transformation*, (Leiden: Brill, 2012).

⁷²² According to the information from the József Katona Museum, except for some not definable fragments from unknown provenances, no new finds were catalogued in the collection of the museum after the reviews of Balassa and Müller. Here I would like to thank the kind help of György V. Székely, who checked the registers.

⁷²³ These finds were excavated and published by Kálmán Szabó, who conducted research in the deserted medieval villages around Kecskemét from 1927. Unfortunately the material was mixed up and partly destroyed during the WW II, thus their provenance is not definable. Szabó, *Az alföldi magyar nép*, 120-125.

Site	Object Type	Dating	Literature
Kecskemét area	mouldboard-shoe	? medieval	Szabó, <i>Az alföldi</i> , 123. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	ploughshare	? medieval	Szabó, <i>Az alföldi</i> , 123. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	hoe	? medieval	Szabó, <i>Az alföldi</i> , 123. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	hoe	? medieval	Szabó, <i>Az alföldi</i> , 123. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	sickle	? medieval	Szabó, <i>Az alföldi</i> , 122. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	sickle	? medieval	Szabó, <i>Az alföldi</i> , 122 Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	iron fork	? medieval	Szabó, <i>Az alföldi</i> , 121 Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	scythe	? medieval	Szabó, <i>Az alföldi</i> , 123-124 Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	anvil-block for a scythe	? medieval	Szabó, <i>Az alföldi</i> , 124 Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	scythe-hammer	? medieval	Szabó, <i>Az alföldi</i> , 124. Müller, <i>A mezőgazdasági</i> , 70.
Kecskemét area	horse-shoes	? medieval	Szabó, <i>Az alföldi</i> , 120-121. Müller, <i>A mezőgazdasági</i> , 70.

Table 10 Artefacts connected to agriculture from the study area

If despite all difficulties the dating of this set of archaeological finds from the study region is accepted, a very special situation can be portrayed. Namely, that concerning the technical quality of all these objects, these constitute the average developed forms in the contemporary Carpathian Basin. Especially those asymmetrical mouldboard plough forms are relevant which became more intensely used beside light ploughs from the fourteenth-fifteenth century. These forms are usually connected to the three-field rotation system in Hungarian historiography.⁷²⁴ In addition, the agricultural tool finds not only from the study area, but generally from the Great Plain region represent the most advanced versions of the heavy plough of the late medieval-early modern period. For instance, one of the earliest thirteenth-century asymmetrical ploughshare finds is known to originate from the Kecskemét environs, and the earliest examples of the asymmetrical ploughshares

⁷²⁴ Balassa, *Az eke és a szántás*, 275, 282.

with Griessäule-holes (in Hungarian: 'címervas') from the late sixteenth century (from Bugac) (Figs 222-223).⁷²⁵

Yet, as it was shown recently, it would be a mistake to deduce that the preference for a plough-type was a criterion which determined the form of land management; the choice probably depended on the local conditions, and the tools were selected to be adapted to the local needs.⁷²⁶ Still, the type of plough is decisive in a way that it can be associated with the shape of the fields; the mouldboard plough is usually associated with the appearance of longer and narrower fields, and the ridge-furrow ploughing (Figs 224-225).⁷²⁷ The presence of long ridge and furrow furlongs were referred to as early as the fifteenth century in the context of the Great Plain area by the traveller Bertrandon de la Broquiere, who in 1433 wrote that, "...It is from this great evenness of the ground that when they plough they draw furrows of an extraordinary length".⁷²⁸ The presence of such a pattern was recently demonstrated by a fortunate archaeological observation in the Interfluve area, where the intact remains of ridge and furrow were documented near Kiskunhalas, below a thick layer of sand and dating from the turn of the thirteenth-fourteenth century. The observation is believed to prove the existence of this plough-pattern in the Interfluve area in the medieval period.⁷²⁹

In respect of ploughing, it is the frequency of ploughing which is characteristic to field systems. According to discussions on agricultural methods, one major difference between the fallow and the rotation systems is the number of yearly ploughing: in case of fallow systems, the soil was usually broken and ploughed right before the sowing, and no additional cultivations are made, while in case of rotation systems, the land was ploughed three times for autumn crops, and two times for spring crops.⁷³⁰ This aspect as a possible indicator of field systems has not been considered in Hungarian surveys, since there are only vague data on the date or frequency of ploughing in medieval Hungary in general.⁷³¹ However, in various parts of Europe, where similar questions and debates came forward in terms of field systems, several methods have been developed to

⁷²⁵ The development of the asymmetrical plough brought that the right side wing became more, articulate, thus, in order to keep the balance while ploughing the left side of the ploughshare was perforated and nailed with the help of a horizontal iron stick called 'címer' ('shield') to the beam. Usually the iron stick is lost, but its presence is indicated by the special rectangular perforation on the left side of the asymmetrical ploughshare.

⁷²⁶ This problem is of course part of a still much contested issue of technological determinism, with a large library of research done. Here I would like to refer to one recent discussion whose argument was relevant for my study: Georges Comet, "Technology and agricultural expansion in the Middle ages: the example of France north of the Loire", in: *Medieval Farming and Technology: The Impact of Agricultural Change in Northwest Europe*, edited by Grenville Astill and John Langdon, (Leiden: Brill, 1997), 11-40.

⁷²⁷ Balassa, *Az eke és a szántás*, 331.

⁷²⁸ *The Travels of de la Broquiere Counsellor & First Esquire-Carver to Philippe le Bon, the Duke of Burgundy to Palestine and His Return from Jerusalem Overland to France, during the years 1432&1433*, translated by Thomas Johnes, (London: Hafod Press, 1807), 313.

⁷²⁹ Nyári-Rosta, *Középkori szántás a homok alatt*.

⁷³⁰ Balassa, *Az eke és a szántás*, 470-479.

⁷³¹ Belényesy, *A permanens egymezős gazdálkodás*. The eighteenth-nineteenth century data was collected by Iván Balassa. See: Balassa, *Az eke és a szántás*, 470-479.

reconstruct the land management techniques of communities and periods without written sources.⁷³² Among these techniques, the analysis of archaeobotanical material, especially the investigation of preserved pollen and weed populations has a decisive role, as these remains may transfer information not only on the general history of vegetation or the contemporary ecological environment, but can contribute to the understanding of agricultural production and plant cultivation techniques. Although there is a long historiography of archaeological investigation of plant remains in Hungary, the publications regrettably stopped at the level of identifying the abundant botanical material, and the surveys were more focused on the general reconstruction of the ecological environs of the archaeological sites.

As an archaeologist, I would like to describe some potentials of botanical analysis in the study of field systems, taking the carefully documented and published archaeobotanical remains of Szentkirály village as a model.⁷³³ In terms of cereal production, the botanical remains revealed that the inhabitants produced bread wheat, and rye, barley and millet in the sixteenth century, corresponding to time in which the Ottoman defter rolls were in use and which document the taxes levied on the harvests of wheat, mixed cereals, barley, flax, hemp, lentil and beans. Regrettably, there is no published information on the proportion of cereals in the archaeobotanical material, except for the fact that the amount of rye and wheat was equal in the surveyed sample.⁷³⁴

type of tax	1546	1562	1580	1590
Wheat	150 kile	300 kile	150 kile	250 kile
mixed cereals	88 kile	250 kile	100 kile	200 kile
Barley	16 kile			
flax-seed		110 kile	100 kile	
flax- and hemp		150 kile	120 kile	100 kile
lentil- and beans				10 kile

Table 11 The cereal taxes of Szentkirály as recorded in the Ottoman defter rolls (after Káldy-Nagy, *A budai szandzsák 1546-1590, 570-571*)⁷³⁵

⁷³² The most important methodological bases and basic literature on this topic was described in *Chapter 2* on sources and methods.

⁷³³ Here I would like to thank the help of Róbert Pál for his professional comments on the weed material.

⁷³⁴ Gyulai, *Archaeobotanika*, 180.

⁷³⁵ *Kile* is the ordinary measure unit in the case of cereals listed in the tax rolls. It should be noted that its exact weight varied in various parts of the occupied territory. It seems that 1 kile was equal with the weight of one Hungarian *fertály*, which makes usually around 30,76 kg in the sixteenth century. At the same time, this was not a permanent measure of capacity as there were several “local” measures; for example in the sanjak of Pécs 1 kile made 41 kg, but in other places 1 kile was equal with 25,65 kg wheat or 22,25 kg barley. Káldy-Nagy, *A budai szandzsák 1559*, 27.

Beside corns, due to the favourable conditions, all in all 41 types of weeds were separated in the archaeological assemblages, among which the most typical were the various pigweeds (*Chenopodium album*, *Chenopodium hybridum*, *Chenopodium murale*, *Chenopodium ficifolium*; libatop), *Cirsium arvense* (creeping thistle, mezei aszat), *Cichorium intybus* (common hicory, mezei katáng), *Lamium amplexicaule* (henbit deadnettle, bíbor árvacsalán), *Lamium purpureum* (purple deadnettle, piros árvacsalán), *Malva neglecta* (common mallow papsajtmályva), *Sonchus oleraceus* (common sowthistle, csorbóka), *Xanthium strumarium* (rough cocklebur, bojtorján szerbtövis), *Arctium tomentosum* (downy burdock, pókhálós bojtorján), *Calystegia sepium* (hedge bindweed, sövényeszulák), *Carduus crispus* (welted thistle, fodros bogáncs), *Galium aparine* (cleavers, ragadós galaj), *Trifolium hybridum* (clover, fehér here), *Lactuca serriola* (prickly lettuce, keszegsaláta), *Malva sylvestris* (blue mallow, erdei mályva), *Marrubium vulgare* (white horehound, pemetefű), *Onopordum acanthium* (cotton thistle, szamárbogáncs) *Agrostemma githago* (corncockle *konkoly*), *Bromus* (bromus, rozsok), *Sinapis arvensis* (wild mustard, vadrepce), *Hibiscus trionum* (Flower-of-an-Hour, varjómák), *Saponaria species* (szappanfű), *Ranunculus repens* (creeping buttercup kúszó boglárka), *Polygonum aviculare* (madár keserűfű), *Daucus* (murok), and *Urtica dioica* (stinging nettle, nagy csalán).⁷³⁶

In relation to arable farming, all these published data basically reveals that both winter crops (wheat, rye) and spring crops (mixed, barley, millet, flax, hemp) were present in the fields. The weed-finds are partly annual and partly perennial species. Among them, the *Bromus* and the *Agrostemma githago* are most likely to appear among winter crops, such as wheat, rye and autumn barley, while the *Hibiscus trionum* or the *Sinapis arvensis* can be detected among the seeds of spring sown cereals, such as millet and spring barley.⁷³⁷ Additionally, there are numerous perennial weed associations, such as *Carduus crispus*, *Marrubium vulgare*, *Cichorium intybus*, *Onopordum acanthium*, which, being thorny, bitter and tramp-resistant plants, which refer to the presence of extended pastures and fallow lands;⁷³⁸ while hay meadows are more characterized species, such as the *Bromus mollis* (puha rozsok), or *Chrysanthemum leucanthemum* (margitvirág), *Lolium perenne* (angolperje), *Rumex acetosa* (mezei sóska), *Salvia pratensis* (mezei zsálya), *Taraxacum officinale* (pongyola pitypang), or the *Trifolium pratense* (vörös here) and *Trifolium hybridum* (fehér here).

⁷³⁶ Gyulai, *Archaeobotanika*, 195-198.

⁷³⁷ Torma, *Szentkirály archaeobotanikai leletei*, 40-41; Gyula Pinke-Róbert Pál, *Gyomnövényeink eredete termőhelye és védelme* [The origins, habitat and preservation of our weeds], (Szeged: Alexandra Kiadó, 2005), 163-164. However, it has been revealed by botanists that at a general level, there is a far-reaching similarity between the assortments of weeds on alike soil-types thus it is hard to separate distinctive groups of weeds in connection with winter or spring sown cereals. It was proven that there is much more identity of order between the weed species of wheat and rye in a soil with similar physiological characteristics, rather than two wheat fields on different soils types. Pinke-Pál, *Gyomnövényeink eredete*, 163-164.

⁷³⁸ Here I would like to thank the useful help of Róbert Pál in interpreting the material.

These data in their presently available published form are inadequate in terms of deducing detailed conclusions on systems, changes or tendencies; more targeted information and quantitative analysis of the preserved material should be done on the individual cereal and weed species. At the present stage, only some general remarks can be made. For instance, the composition of the seed-flora, especially the presence of numerous low-growing plants suggests that the scythe was used during the cultivation works. Another important detail is that the appearance of abundant perennial weeds indicates the presence of fallow lands, which were not ploughed for years. The collation of written sources and vegetal remains calls to the attention that most probably autumn sown crops, spring sown crops and fallow lands were present at the same time in the boundary of Szentkirály, which means that the arable fields (or groups of arable fields) were divided into at least two parts. The reference of the defter rolls to significant hemp and flax production, which plants are typically sown in early spring to freshly broken soils and before autumn cereals rich in nitrogen. This may denote that the production was more intensive than it was previously supposed. Still, these reflections are not enough by themselves to reconstruct the complete system of management.

8.4 THE PATTERN OF ARABLE FIELDS AND PASTURES

In addition to the system of cultivation, the location and distribution of cultivated fields must be understood as these affected the nature of settlement. At Kecskemét, the first detailed group of written evidence is available from the Ottoman defter-rolls, which provides a well-defined chronological moment in which to study the area under cultivation, and one that can be compared with for example those for Szentkirály. The tax lists indicate that in 1546 500 kile was due on the wheat harvested, and 200 kile was due from the barley, while only 20 kile of wheat and 60 kile of barley was expected from the eight puszta lands. In 1559 the proposed incomes are not specified in case of Kecskemét, but in this year 177 kile of wheat and 46.5 kile of mixed grain was due, and only one-tenth was proposed from the deserted lands.⁷³⁹ In 1562, 1421 kile wheat and 750 kile barley was expected from Kecskemét, and no wheat production at all was documented in any of the puszta lands. At the same time, in 1546, 950 akçe,⁷⁴⁰ and in 1559, 1360 akçe income is proposed after hay from the puszta lands, while no such entries are documented connected to Kecskemét.

⁷³⁹ Most possible the term “mixed cereals” refers to a special mixture of wheat, oat, rye, barley and millet. Káldy-Nagy, *A budai szandzsák 1546-1590*, 31. The *triticum mixtum*, also mentioned as *cerealiam promiscum* is detected in documents from the eleventh to the nineteenth century onwards. Latest research showed that the mixture of cereals were not only sowed for safety reasons (i.e. if one species would yield poorly than the other species can crop well) but most probably it was recognized that the mixture of various grains stimulate more abundant crop and more resistant to pathogens. See: Gyulai, *Archeobotanika*, 180-181.

⁷⁴⁰ Akçe was a silver coin, monetary unit of the Ottoman Empire. In the sixteenth century 50 akçe equalled 1 Hungarian Florin.

Surprisingly, among the puszta lands the greatest wheat production was registered at Bábonny and Monostor, which are the farthest territories from Kecskemét among the deserted lands. This shows on the one hand that high-quality arable fields were probably located there; on the other hand indicates that the civil population was capable of maintaining continuous arable farming on relatively distant deserted areas despite the hostile decades of the mid-sixteenth century. The next table shows the proposed incomes from Kecskemét and the deserted village lands connected to the town. Note that the tax is partly given in measures (kile) and in cash(akçe); the total income is always given in cash.

	1559	20	10			50		300
	1562						1750	1750
Matkó	1546	10	50			800		1000
	1559	40 wheat	10 „mixed	barley	millet,	460 hay	pasture	1000 total income
	1562	(kile)	cereals”	(kile)	flax (kile)	(akce)	(akce)	(akce)
Alsó-Monostor	1546		(kile)					
Kecskemét	1559	50	50	104		10		1000
	1562	200	200					2000
	1559							28.310
Felső-Monostor	1546		750		2500			2032
Agasegyháza	1559	50	16,5			15		850
	1546	10	10			150		300
	1562							1500
Páhi	1546	10	10			100		200
	1562						1750	1750
Bábonny	1559							400
	1546							410
	1562							1250
Homok	1559	13	39			30		700
	1546							
	1562						266	266
Bene	1559							892
	1562		1,5			30		100
TOTAL	1546	520	260	104	2500	950		20.000+3642
Borbás	1552	230	147					28.310+7162
	1546							391
	1562	1421	750			2500	3766	46.445+10.666
	1562							2000
Bugac	1546							
	1559							
	1562							700
Félegyháza	1546							
	1559	2	1			600		630
	1562							1900
Köncsög	1546							

Table 12 The tenurial revenues of Kecskemét and the deserted lands used by the town.

Red: 1546, Blue: 1559, Green: 1562

It is noticeable that in 1562, 2500 kile tax is proposed for millet, flax and lentil production from the territory of Kecskemét, and these crops have not been mentioned before. This phenomenon is even more striking, if we consider that millet, flax and lentil are traditionally planted first as the field is broken up for production, or immediately after it is rotated back from being fallow.⁷⁴¹ It may indicate a point in time where a major reorganization of the field system occurred, when the arable fields were merged into an intensive inner zone of plough-fields in the close surroundings of the town. At the same time, the proportion of arable farming decreased, and the ratio of pastures significantly increased in the puszta lands. This pattern can be interpreted as rings or belts of diverse agricultural activity surrounding the city where the most intensive farming occurs in the ring closest environs of the settlement.⁷⁴²

The demand for arable lands can be apparently be explained by demographic trends between in the period between 1550 and 1570 period, when the town's population doubled, according to Ottoman sources. It is probable that this intensive zone of arable fields⁷⁴³ is represented on the earliest detailed portrayal of the town boundary from 1770. All the arable fields were divided into two parts. The furlongs were not arranged in a regulated pattern, there are abundant green areas among them. The overall picture suggests that only a small portion of fields were cultivated, while the majority of the area was left fallow. This loose pattern may in part be explained by the impact of plague between 1738 and 1740, and the abandonment of holdings that would have resulted (Fig 225).⁷⁴⁴

The earliest cartographic representation suggests that environmental factors had an effect on the pattern of arable fields. For example at Ágasegyháza and at Bábonny, the wet ecological environment defined the possible locations for arable farming. Thus, arable fields were sited on higher, island-like elevations (Fig 226). Besides, it was also demonstrated after the abandonment of medieval villages, the cultivation of the arable fields attached to the toft (former kertalja szántók)

⁷⁴¹ Belényesy, *A parlagrendszer*, 324-325

⁷⁴² This type of land management apparently resembles the theory of Von Thunen on agricultural land use. The model of agricultural belts around market towns was also described by Hungarian scholars. See: Beluszky, *Die ungarische Tiefebene*; Novák, *Településnéprajz*, 123-137.

⁷⁴³ Concerning the morphology of agricultural production, it has been confirmed by historians that various zones of production were separated around medieval settlements, established on individual territorial as well as ecological backgrounds. Generally, there has been an inner zone of fields, including arable fields (*kertalja szántók* or *tanor kertek* in Hungarian), vineyards and kitchen gardens as well as pastures close to the settlements, which were separated from the arable fields, pastures, meadows and other profitable lands such as forests, reeds, lakes in the outfields. Maksay, *A magyar falu középkori településrendje*, Belényesy, *A permanens egymezős földhasználat*.

⁷⁴⁴ *Kecskemét története*, 607-609.

regularly survived as well definable sectors of arable lands around the ruins of the former settlements, and are recorded clearly on later maps as a cluster of arable fields around church ruins.⁷⁴⁵ Such medieval arable fields may also be indicated on late eighteenth-century maps of Szentlőrinc and Ágasegyháza (Figs 227-228).

The site and topography of pasture lands are even more complicated to define, as there are various ecological habitats which provide favourable conditions for grazing. The sources suggest that immense numbers of cattle, horses, and sheep were bred in the Interfluve Region. However, in common with the records for arable farming, the details of breeding practices can only be modelled after the surviving elements of the system in the eighteenth-nineteenth century, as documented by historical and ethnographic research.⁷⁴⁶ Without doubt, the livestock bred for export were held on the grasslands all year and treated separately from the draught animals, and the other domestic species kept for consumption in the inner city area. Presumably, there was a strict order of extensive animal husbandry, in which the animals were shifted throughout the year between among permanent pastures and temporary fallow-grasslands, as seasons and vegetation changed. In the winters they were collected and fed in defined meadows, where they were surrounded by pens, but stables were not used (*telelők*) (Figs 229-230).

An important source are the records of disputes which arose because of unwarranted trespass of livestock onto grazing lands, and this is an issue that is noted in the earliest town protocols from the 1590s.⁷⁴⁷ The extent of the matter is reflected in the fact that the penalty becomes an annual item accounted in the Ottoman tax rolls.⁷⁴⁸ Accordingly, it seems that Kecskemét was the largest centre of sheep-breeding in the sanjak of Buda.⁷⁴⁹ As sheep played an important role in the provisioning of the Ottoman army, not only the proposed incomes, but also the number of sheep kept by individual owners was registered, allowing quite a detailed insight into the scale of sheep-breeding. The records indicate that in 1546 some 3,759 sheep were kept by 16 owners, while in 1562, 10,693 animals were listed among 41 farmers. Accordingly, the average size of a flock varied between 235 and 261 animals, but hardly any sheep-keepers had more than 400 sheep.⁷⁵⁰ Interestingly, there are no visible traces of large scale trading activity with sheep in customs registers, suggesting that the sheep were not traded significantly towards the west, but were probably consumed locally.

⁷⁴⁵ Maksay, *A magyar falu középkori településrendje*, 149-150.

⁷⁴⁶ Szakály, *A hódolt megye*, 361; Novák, *Pest-Pilis Solt vármegye alföldi vidékeinek településrendszerei*; Tálasi, *A Kiskunság népi állattartása*.

⁷⁴⁷ MJ I 32, 50.

⁷⁴⁸ Káldy-Nagy, *A budai szandzsák 1546-1590*, 80.

⁷⁴⁹ Szakály, *A hódolt megye*, 356-357; Mészáros, *Kecskemét gazdasági élete és népe a XVI. század közepén* 84-90.

⁷⁵⁰ *Kecskemét története*, 195-196; Szakály, *A hódolt megye*, 357; Káldy-Nagy, *A budai szandzsák 1559*, 173-176.

There are no exact numerical data for horse breeding in contemporary sources, and only a few hints are available for cattle breeding and their trade. This is in part because taxes were not imposed on either animal and consequently there was no reason for recording them. The one exception occurred in the 1560s, when a pasture-tax of 1 akçe was imposed for every grazing animal.⁷⁵¹ It indicates that most cattle were kept at Ágasegyház and Köncsög, both paying 1750 akçe in tax, suggesting 1750 animals in each locality, while in Bábonny, presumably 266 animals were kept. This would mean that 3,766 cattle were bred on three of the puszta lands. This indicates an immense number of livestock. Even if the data is exaggerated, for whatever tax purpose, at the very least it suggests the significant importance and size of the livestock herds that were maintained by the town on the deserted lands.

It is also problematic to shed light on the presence or the exact scale of animal husbandry in the core territory of the town from the sources. The figures of the defter rolls presented in Table 13 on the Ottoman taxes of Kecskemét show that animal husbandry was for sure present in the close surroundings of the market town.

	1546	1562
wheat	500 kile/5000 akçe	1421 kile
mixed	200 kile/1000 akçe	750 kile
barley	104 kile/ 520 akçe	-
millet, flax and lentil	-	2500 akçe
number of beehives	50 items	325 items
pigs	50 items	347 items
tenth of sheep	100 items	60 items
mills	-	20 (mills)
tenth of fruit	-	50 akçe
wine levy	100 akçe	-
levies from markets and fairs	180 akçe	-
penalty fee	1000 akçe	-

Table 13 The taxes of Kecskemét in 1546 and 1562 (after Káldy-Nagy, A budai szandzsák 1546-1590, 349)

⁷⁵¹ One should be aware that the data assessed from tax-lists has to be interpreted only as rough estimate rather than accurate data; we don't know for instance whether only mature animals were taxed; or do the records distinguish between male/female stock; milk/beef; draught/non-draught. Gyula Káldy-Nagy, *A magyarországi török adóösszeírások* [The Ottoman defter rolls in Hungary] (Budapest: Akadémiai Kiadó, 1970) 75-80.

This is hard to discuss whether the reference to tax levied on sheep and the high amount of penalty fee can be evidently identified with large-scale stockbreeding, or these animals were kept for domestic use. Regarding land use, the presence of approximately 1000 sheep clearly indicates that there must have been sizable pastures in the close vicinity of the town. The grazing of animals was supposedly more restricted in the closest zones, and there were several forbidden or limited areas, such as the forests of Nyír and Talfája, or the meadows at Úrrét and Városföld.⁷⁵² The lack of pasture tax from the rolls is also striking. This further supports that large-scale extensive animal husbandry was primarily conducted outside the area of the town. Still, there was an extensive pasture south of the town, at or around the location of the annual fairs (that is the Fair-field. This Pascuum, was named as *Gyepes* ('grassy') in 1770, and *Városi Füzes legelő* ('town pasture with willows'), or *Városi Közlegelő* ('common town pasture') in the nineteenth century. This area was of strategic importance because the annual fairs held there, where thousands of beasts were displayed. Since these animal fairs lasted for ten to fourteen days, the accommodation and the alimentation of animals required central planning and proper administrative background. As its name suggests, this area remained under the control of the town's magistrates (Fig 231).

It is possible to study the livestock breeding practices around Kecskemét by examining the leased deserted village sites individually. As it was mentioned before, in theory the deserted village lands were commonly used by the people of the town. However, smaller or larger fields, and often whole territories of deserted village lands were rapidly fenced off as private tenements by wealthy stockmen. It would be too oversimplifying to equate the economy of the puszta lands with animal husbandry in the sixteenth-seventeenth centuries, while the evidences suggest that beside the large-scale animal husbandry, arable farming was always present on the deserted lands. Consequently, the management of the puszta lands should be understood as a complex system, which due to specific circumstances produced extra profit from large-scale animal husbandry. Here I quote three examples to support this argument:

Predium Báfony was rented by Miklós Marton, a wealthy stockman from Kecskemét, in the period between the 1550s and 1580, and together with István Tas and Benedek Tas in 1580. According to the defter roll from 1559, Marton maintained arable farming as well as hay production, but in 1562 tax was only demanded after grazing, which indicates the dominance of large scale animal husbandry.⁷⁵³ He was listed among the citizens of Kecskemét in the 1562 defter roll, but he is not recorded among sheep-owners, which indirectly suggests that he kept cattle or horses on this field. At the same time most likely he was not personally involved in the commerce as his name does not appear among merchants from Kecskemét in the custom registers.

⁷⁵² The town protocols often note from the 1590s that citizens offended this regulation and were fined because of illegal grazing. (MJ I. 30, 32, 33, 34, 36)

⁷⁵³ Káldy-Nagy, *A budai szandzsák 1546-1590*,

Predium Köncsög was quite similarly managed, it is registered as having been rented by György Ferenc in 1564,⁷⁵⁴ and by Ferenc Török in 1580 and in 1590.⁷⁵⁵ In 1559, taxes were levied after cereals as well as hay production, while in 1562 only after grazing animals. None of the farmers were recorded among sheep-owners or merchants, thus likely cattle or horses were bred at *predium Köncsög*.

In 1564, the freshly depopulated *predium Borbásszállás* was rented by Mihály Végh,⁷⁵⁶ who had two lodgings (*szállás*) there. According to the tax roll, one part of the fields was used as arable land just as it was presented in the former cases, but the relatively high incomes proposed from hayfields and the presence of lodgings (winter stalls?) implies animal husbandry. In this case the tenant, Mihály Végh could be identified as a medium-scale sheep breeder on the basis of the listing from 1562, owning a flock of 200 sheep.⁷⁵⁷ At the same time he is known to have been elected as *Judex Primarius* of the market town in 1564,⁷⁵⁸ hence he was certainly one of the most affluent and wealthy citizens in the 1560s. Consequently, it can be inferred that besides smaller-scale sheep-breeding he also had considerable herds of cattle and/or horses at *Borbásszállás*. The sources suggest that the herdsmen and their employees⁷⁵⁹ resided in the town, and expect for the shepherds who looked after the animals no permanent inhabitation can be detected on the *puszta* lands, however, there is evidence that during the main seasonal works, such as hay-collecting, these people temporarily stayed on the *puszta* lands.⁷⁶⁰ Concerning the overall topography of permanent pastures, it is apparent that larger private grasslands were all located at the leased deserted village lands.

8.5 MEADOWS, HAYFIELDS

Connected to animal husbandry, beside the extensive grazing fields, significant bodies of permanent meadows existed around the market town. The figures indicate that there were major

⁷⁵⁴ Antal Velics and Ernő Kammerer, *Magyarországi török kincstári defterek* [Ottoman state defters from Hungary], (2 vols, Budapest : M. Tud. Akadémia Történelmi Bizottsága, 1886-1890), vol. 1, 285.

⁷⁵⁵ Káldy-Nagy, *A budai szandzsák 1546-1590*, 387-388.

⁷⁵⁶ Velics-Kammerer, *Magyarországi török kincstári defterek*, 285.

⁷⁵⁷ He lived in the most prestigious Nagy utca mahalle, but was not among the largest sheep keepers, as in 1562 majority of stock-breeders owned 200- 300 sheep, but there were nine owners possessing more than 400 sheep! Káldy-Nagy, *A budai szandzsák 1559*, 173-174; Mészáros, *Kecskemét gazdasági élete és népe a XVI. század közepén*, 88.

⁷⁵⁸ Hornyik, *Kecskemét város története*, vol 2, 225.

⁷⁵⁹ For example day-workers and a conflict on their wages are mentioned in 1592. MJ I 33.

⁷⁶⁰ Especially herdsmen spent most of their time on the *puszta* fields with the animals, but perhaps during the most important seasonal works they stayed in such lodgings (*szállás*) mentioned by the 1562 defter rolls in case of *Borbásszállás*, or lodgings mentioned by the town protocols in the possession of the citizens in 1593 and 1598. (MJ I 35, 47) The temporal absence of those people working on the *puszta* lands can also be indirectly concluded from the fact that some of the wealthiest stockmen known to have rented whole deserted lands were not present when the population was conscribed for the defters. (Mészáros, *Kecskemét gazdasági élete és népe a XVI. század közepén*)

meadows around the town in the parts of Úrrét, Ballószeg Talfája,⁷⁶¹ and most probably other hay-meadows existed in the Városföld area, later represented on maps as Városi Fűzes Kaszáló ('town meadow with willows'). The earliest records for hay fields come again from the 1590s town protocols, partly described as being in the possession of the town, and partly as being distributed as füves kertek ('grassy gardens') among the citizens.

Regarding the deserted tenements, while in 1546 and 1559 ploughed lands were present in all puszta lands, by 1562 the majority of the 11 deserted village lands were utilized as pastures and meadows alone; for example from Ágasegyháza, Bábony and Matkó tax was only required after grazing animals. The largest amount of hay was required from Matkó, Félegyház and Borbásszállás, all in the close neighbourhood of Kecskemét, suggest that these areas probably had an important role as the winter stalls of the livestock. It is notable that topographically those areas where the largest herds are supposed to have been raised (Barabásszállása, Köncsög) were in the close vicinity of the major hay producing territories.

8.6 CHANGING LAND MANAGEMENT AT MONOSTOR: A CASE STUDY

In relation to Monostor, I attempted to sketch the pattern as well as the changes in land use between the sixteenth and the nineteenth century, which I present here as a more detailed case study. Felsőmonostor was documented as a deserted land, which was used by the citizens of Kecskemét. In 1546, the proposed income was 2032 akçe, the sum was not explained in details. In 1559, the income was 850 akçe from wheat tithe (50 akçe), mixed cereals' tenth (16,5 akçe) and hay tenth. In 1562, the tax was 1500 akçe, in 1580 1600 akçe, and in 1590, 1600 akçe. Alsómonostor was registered only in 1559, as a deserted land which was used by the citizens of Kecskemét. Its income was 1000 akçe, which came from the tithe of wheat, tithe of mixed cereals, and the tithe of hay. Unfortunately, these data are too general to draw detailed conclusions, but they clearly reveal that tillage was present in the economic production of the territory in the sixteenth century. The high proportion of hay as compared to cereals in the tax of 1562 can be theoretically interpreted as an indicator that animal husbandry was more dominant than ploughing. This hypothesis can be further considered, if this information is put into the context of ecological data and the place-name information of the maps.

If we have a look on the earliest, eighteenth century maps (Figs 91-99), the following deductions can be made regarding the ecological situation and the contemporary land management: The western part of Monostor was defined by a northwest-southeast oriented series of sand dunes ("Sabulum"), which was next to the north-west oriented series of lakes and marshy areas as well as

⁷⁶¹ 1599 (MJ I 59)

wet meadows (“sombos rét”); there are seven lakes in all represented on the 1783 map, such as the Fejér Széke, the Kerek tó, the Templom Széke, or the Len Áztató. The eastern side of the territory is represented as agricultural land: in 1793 it is shown as arable fields, on the 1783 and 1800 map as a “green field”, which may also stand for pastures or arable fields (Fig 232). At that time this eastern part was apparently divided into artificial small parcels, gardens; the last wills of the citizens from that period often refer to such allotments (gardens, fields) at Monostor.⁷⁶² However, there are no buildings represented on these earliest maps of Monostor, except for a group of three houses in Alsómonostor, labelled as Domus All(odium) Opp(idi) K(ecs)kemét.

Accordingly, it can be surmised that in the second half of the eighteenth century, the western and the eastern part of Monostor was managed in different ways: the western, sandy areas were apparently not ploughed, but were uncultivated sand dunes, or were used as pastures, while the eastern part of the area was dominated by arable husbandry (Fig 233).

This can be further analyzed based on place-name evidence from the area, however, it has to be noted that these place names are documented from a relatively late period. Namely, in 1885, the western part of the estate, south of the Farkasordító hill (‘wolf-howling hill’)⁷⁶³ was called “Közlegelő” (‘public pasture’), which is a clear indication that the area had been or still was used as pasture. Additionally, it cannot be a mere coincidence that the Közlegelő area is neighboured by Telelő (‘winter stalls’) from the west. Yet, the territory of the Közlegelő is represented as a shrubby/wooded area at that time (Fig 234).

The origin of these place names can be connected to the ecological system of the area: historical environmental studies suggest that the appearance of shifting sand dunes in the eighteenth century was a result of overgrazing in the previous centuries; such sand dunes were represented at Monostor as Sabulum in 1787.⁷⁶⁴ According to ecological surveys, dry sandy meadows of the sand dunes were characterized by the minimal presence or the lack of the uppermost humus layer in the soil. As far as the most typical trait of these sand dunes is their shifting, they are described as one of the most dynamic soil forms in ecological studies.⁷⁶⁵ It was also proved that in case the grazing is given up in such areas, in the course of succession, varied ecological communities develop; the first associations are perennial grass species, which slowly transform into more closed grassland and

⁷⁶² 1796: „Monostoron fél portio hatszáz egynéhány forintokon vétetődven” [Half a plot bought for sixhundred and some more Forints] MJ II, 138; 1797: „Monostoron megváltván örökösen egy portio földemet fizettem az árában 1400 forintokat” [I redeemed my one-portion field at Monostor perpetually] MJ II 141; 1801: „Monostoron vagyon egy portio földem” [I have one portion of land at Monostor] MJ II 192.

⁷⁶³ This hill most was probably a boundary mark between Monostor and Bugac.

⁷⁶⁴ The recent studies proved that sand dunes are present in the Great Plain area from the Holocene. There were more periods when the shifting of the sand was documented.

⁷⁶⁵ András Kun, “Száras gyepek Magyarországon” [Dry meadows in Hungary], in: *Száras gyepek Magyarországon. Természetvédelem területhasználok számára*, edited by Vilmos Kiszkel, (Vác: Göncöl Alapítvány, 1998); Marianna Biró and Zsolt Molnár, “A Duna-Tisza köze homokbuckásainak tájtipusai, azok kiterjedése, növényzete és tájtörténete a 18. századtól” [The landscape variations of dry sand dunes in the Danube-Tisza Interfluvium Region], *Történeti Földrajzi Füzetek* 5(1998): 1-34.

juniper-poplar formations.⁷⁶⁶ In 1885, the Közlegelő is represented as a wood and shrub covered area, which may be thus inserted and put into the context of that succession process.

Hypothetically, the history of the landscape can be suggested in the following way: the western, Közlegelő-part was used as a pasture, which became overgrazed and too sandy for animals, and was abandoned by 1787. In one hundred years, soil formation had taken place as it is evident by the appearance of grasses and then shrubby-and forest vegetation in 1885. Less is known about the eastern part of the estate, the presence of arable fields in the eighteenth century suggest that this more humid part had better prospects in arable farming. Unfortunately, at the present state of investigation, it is not possible to declare in what period this pattern developed, or how quickly these processes took place. Further targeted ecological surveys, especially the pollen investigation of the Zsombos wetland area may provide further evidence in this respect.

8.7 WOODLAND MANAGEMENT

Besides arable farming, there are two more segments of land use, which have received relatively little scholarly attention compared to animal husbandry, namely woodland management and horticulture.⁷⁶⁷ Concerning the management of woods, as it was described in the chapter on the ecological conditions, the natural habitat of the Great Plain area is the so-called woodland steppe, where more or less closed woods alternate with grassland of usually dry habitat. Although the degree to which wooded areas decreased during the medieval period has not been clearly defined yet, it seems that until the eighteenth century, several bodies of wooded areas remained in various parts of the study area. In general terms, four major categories of woods are distinguished in medieval documentary sources in Hungary, namely *silva communis*, *silva permissoria virgultum* or *rubetum*, and *nemus*. Among these terms the *silva communis* and the *rubetum/virgultum*-type woods are referred to in the context of the study area.⁷⁶⁸

⁷⁶⁶ *Dry sand vegetation of the Kiskunság*, edited by Zsolt Molnár, (Budapest: TermészetBÚVÁR Alapítvány Kiadó, 2003).

⁷⁶⁷ In the latest summaries on the development of the area in the Ottoman period, neither Ferenc Szakály, nor Gyula Kocsis discussed this matter in the context of Kecskemét's economy during the Ottoman Occupation period. Szakály, *Pest megye*, and for Kocsis see *Kecskemét története*, 173-204.

⁷⁶⁸ The basic terminology and nature of medieval woodland management was explored recently by Péter Szabó. See: Péter Szabó, "Mert a fának van reménysege..." Csonkolt fák Magyarországon" ['There is Hope for a Tree': Pollarding in Hungary] *Korall* 9 (2002): 155-172; Péter Szabó, "Sources for the historian of medieval woodland." In: *People and Nature in Historical Perspective*, edited by József Laszlovszky and Péter Szabó, CEU Medievalia 5. (Budapest: CEU Medieval Studies and Archaeolingua, 2003), 265-287; Péter Szabó, "Traditional woodland management in Central Europe" in: *History and Sustainability. Proceedings of the Third International Conference of the European Society for Environmental History*, (Florence: CNR and Università di Firenze, 2005), 125-130; Péter Szabó, *Woodland and Forest in Medieval Hungary*, BAR International Series 1348, Oxford: Archeopress, 2005; Péter Szabó, "Erdőgazdálkodás a középkorban" [Woodland management in the Middle Ages], in: *Magyar középkori gazdaság- és pénztörténet* edited by József Laszlovszky, László Ferenczi and Péter Szabó, (Budapest: Bölcsész Konzorcium, 2006), 81-103; Péter Szabó, "Erdők és erdőgazdálkodás a középkori Magyarországon" [Woodland and its management in medieval Hungary], in: *Gazdaság és gazdálkodás a középkori Magyarországon: gazdaságtörténet, anyagi kultúra régészeti* edited by András

The first reference to woods comes from the perambulation at Cegléd in 1368, when the *una sylva tulherdew dicta* ('tölgyerdő', that is 'oak wood') was noted, which was in the common use of the three market towns.⁷⁶⁹ In 1382, Queen Elizabeth prohibited the Cumans from using this forest, and stressed that the forest should be managed commonly by the towns of Cegléd, Nagykőrös and Kecskemét.⁷⁷⁰ The memory of this common woodland was also preserved in the name of the village called Tölgy (that means 'oak'), which was noted because the via magna leading towards Szeged led through the settlement.⁷⁷¹

Most probably the parts of this woodland were referred to along the boundary of Vacs and Mizse in 1521 as *sylva Zemere erdeje vocata* ('the wood of Zemere') and *prope Sylvam Toth Benkew Erdeje on loco háth* ('next to Toth Benkew's wood';) were also part of this larger woodland. It is notable that in both cases the woods are referred to as being managed or owned by individuals.⁷⁷² In the sixteenth century two additional woodlands are mentioned in the close surroundings of Kecskemét, namely the *Nyír* ('birch') Wood, and the *Talfája* Wood (Figs 235-237). In relation to the first town protocols, it seems that these two main bodies of woods belonged to the communal possessions of the town,⁷⁷³ and as such they were carefully safeguarded by the woodland-guards employed by the town itself⁷⁷⁴ from illegal cutting as well as grazing of animals in the woods.⁷⁷⁵ There is no trace of any specific tax connected to woodland management in the Ottoman tax rolls, still the charges levied on pigs may include this contribution as the pigs were partly fed and maybe kept in the wooded areas.

Kubinyi, József Laszlovszky and Péter Szabó, (Budapest: Martin Opitz Kiadó, 2008), 317–339; Péter Szabó, "Erdők a kora újkorban: történelem, régészet, ökológia" [Woodland in the Early Modern Period: History, archaeology, ecology], in: *Környezettörténet. Az utóbbi 500 év környezeti eseményei történeti és természettudományos források tükrében* edited by Miklós Kázmér, Budapest: Hantken Kiadó, 2009, 137–156; Péter Szabó, "Hagyományos erdőgazdálkodás a Kárpát-medencében" [Traditional woodland management in Hungary], in: *Antropogén ökológiai változások a Kárpát-medencében*, edited by Bertalan Andrásfalvy and Gábor Vargyas (Budapest: PTE Néprajz – Kulturális antropológia Tanszék and L'Harmattan, 2009), 139-141; Péter Szabó, "Changes in woodland cover in the Carpathian Basin" in: *Human Nature: Studies in Historical Ecology and Environmental History*, edited by Péter Szabó and Radim Hédli (Brno: Institute of Botany of the ASCR, 2008), 106–115.

⁷⁶⁹ ...*sylva tulherdew, que sylva esset usualis trium oppidorum seu villarum Chegled ... Keurus et Kechkemeth nominatorum...* Bártfai Szabó, *Pest megye*, 85-86.

⁷⁷⁰ ... *silvam nostram Tulerdew vocatam prout prius et usque nunc communiter usi fuistis...* MOL DL 6973; Bártfai Szabó, *Pest megye*, 95-96.

⁷⁷¹ 1264: *viam magnam...*(ad) *villam Thulgh* (*Monumenta ecclesiae Strigoniensis*, vol 1, 513.), 1266: *villa Thul* in *comitatu Chengrad* (Dl. 614), 1272: *viam magnam...*ad *villam Tulg* (*Monumenta ecclesiae Strigoniensis*, vol 1, 593.), 1276: *villa Tulg* (Dl. 942), 1390: *terris desertis...*Thewlgh (*Zsimondkori Oklevéltár*, vol. 1, 175.), 1505: *possessio Thewlgh* (Bártfai-Szabó, *Pest megye*, 315)

⁷⁷² Benedek-Kürti, *Bene. Lajos és Mizse oklevelei*, 41.

⁷⁷³ However, it should be noted that from the seventeenth century, there are numerous privately owned forest-parts mentioned in both the town protocols and the testaments of the citizens. First appearance is documented in 1659. MJ I 65.

⁷⁷⁴ These guards are first mentioned in 1597 (MJ 30).

⁷⁷⁵ For example in 1592 Miklós Kürty, Péter Hanga and Péter Hangyás paid penalty because they grazed their animals in the *Nyír* Forest despite the prohibition of the Town's Magistrates. In case of Kürty it was defined that he had sheep. MJ I 32, 34, 36, 50. Trees were cut without permission from the *Nyír* and *Talfája* forests e.g. in 1592. (MJ 34; 36; 39).

Unfortunately, it is not specified in the documents, what types of trees were to be found in these areas. From the toponym it can be inferred that Nyír got its name from the birch trees, which may have been the most characteristic tree species, while the prefix Tal(-fája) can maybe derived from the word “tölgy”, that is oak, which connects it to the previously described oak woods in the area.

In terms of interpreting the ecological character of these woods, it has to be taken account that more virgultum/rubetum-type woodlands are referred to from the neighbourhood of the oak woodland, which were identified as woodland steppe, or forest pastures according to the latest discussion on the topic.⁷⁷⁶ For instance, in the perambulation of Esső village from 1385 the boundary crossed *inter duos monticulos juniperosos Iwantarya nuncupatos*, and another boundary mark was defined as being rubetus *Rekettye* dictam (‘rekettye’ means ‘gorse’).⁷⁷⁷ *Harazth rubetum* is also mentioned located in the borderland of Kecskemét, Cegléd and Kőrös in 1423.⁷⁷⁸ The fact that these areas between Kecskemét, Nagykőrös and Cegléd are referred to in documentary sources as important, and contested grazing zones, and the clear differentiation of medieval terminology between the closely located woods of silva and rubetum allows deducing that most probably there were more smaller closed oak woodlands in the area, which alternated with more open forests or woodland steppe in the medieval period.

It is apparent that those smaller wooded areas represented on almost all maps from the eighteenth century onwards, may be the descendants of the medieval woodlands. Furthermore, there are some old relict oak trees near today Nagykőrös, whose location is connected to the site of the pre-modern wood, thus they might be the among the surviving pre-modern landscape features of the area (Fig 238).⁷⁷⁹

Beside this area, additional silvae can be traced at Szentlőrinc and Szentkirály. The first reference to the Szentkirály wood can be found in the perambulation charter issued in 1354, when one of the boundary markers was at *unum parvum monticulum inter parvum virgultum*, which denotes that here also some kind of an open woodland steppe vegetation can be visualized in the medieval period.⁷⁸⁰ After the village at Szentkirály became deserted in the early seventeenth century, the area, including the woodland was used by the Kecskemét residents. The town protocols inform us about the careful exploitation and management of the trees. The Szentkirály woodland is also depicted on all maps from the mid-eighteenth century till the early twentieth century. The

⁷⁷⁶ Szabó, *Woodland and forest*, 335-336.

⁷⁷⁷ Benedek-Kürti, *Bene. Lajos és Mizse oklevelei*, 11-12.

⁷⁷⁸ Bártfai Szabó, *Pest megye*, 121.

⁷⁷⁹ Zsolt Molnár, “Interpreting Present Vegetation Features by Landscape Historical Data: an Example from a Woodland-Grassland Mosaic Landscape (Nagykőrös Wood, Kiskunság, Hungary), in: *The ecological history of European Forests*, edited by Keith J. Kirby and Charles Watkins, (CAB International Publications, 1998), 241-263.

⁷⁸⁰ Szabó, *Hagyományos erdőgazdálkodás a Kárpát-medencében*.

contours of the once woodland are still observable as field boundaries on the recent aerial photo of the area. Thus, this wood can also be interpreted as a long-lived feature in the landscape (Figs 239-240).

The same is true for the Szentlőrinc woodland. Although there is no direct medieval reference to the wood here, it is often quoted from the mid-seventeenth century as being managed by the magistrates of Kecskemét, and it is easily identifiable on maps until the early twentieth century (Fig 241).

8.8 VINEYARDS AND ORCHARDS

Another unexplored subject within the field system of Kecskemét is the nature and extent of horticulture, especially the appearance of vineyards as well as fruit production. Vineyards were among the most valuable private possessions that tend to accumulate in the hands of urban populations, and vineyards are known to be among the factors that stimulated the urban development of market towns.⁷⁸¹ In case of Kecskemét, the free legal status of the vineyards played a key role in the early modern expansion of the town in addition to meadow gardens. It was János Hornyik, and later Kálmán Szabó, who attempted to summarize the development of the vineyards and fruit production of the town.⁷⁸² They claimed that the earliest vineyards were likely to have been planted when the settlement formed, and before the Ottoman occupation. They suggested that the most ancient vineyards were the “*Vénhegyek*” or “*Öreghegyek*” (‘Ancient Hills’), located north-west of the inner city area, at the Budai Gate (Fig 242).⁷⁸³

The vineyards – as they are described in the town protocols from the 1590s – show a developed system, confirming the opinion of Szabó and Hornyik. The magistrates of the town probably set the maximum price of wine and the market of the vintage.⁷⁸⁴ The earliest reference to the legal status of the vineyards comes from 1598, when a vineyard was sold by a citizen to another resident. The reference states in this case that the cellar was located in the vineyard (and not in the town).⁷⁸⁵

⁷⁸¹ Makkai, *A mezővárosi földhasználat kialakulásának kérdései*.

⁷⁸² See Hornyik, *Kecskemét város története*, vol 1, 165-166; Kálmán Szabó, *Kecskemét szőlő és gyümölcstermelésének múltja* [The history of viticulture and horticulture of Kecskemét], (Kecskemét: Katona József Társaság, 1934).

⁷⁸³ I did not find any details on these vineyards in the published version of the town protocols. Szabó most probably found these data in the original manuscripts of the protocols, which were destroyed in World War II. On the nineteenth-century map of the town the *Öreghegyek* vineyards are represented as part of the later Budai hegy and Vacsí hegy.

⁷⁸⁴ On the control of prices see MJ I 48 and 49; In 1593 and in 1598 a number of citizens were sentenced to pay penalty because they sold wine in their own houses without permission. MJ I 35 and 50; Szabó, 1934 56 In 1661 The Magistrates strictly regulated, in fact monopolized the retail of wine production by defining how much of the produced wine had to be sold to the Town’s Tavern on a fixed rate, which was re-sold by the town in the taverns- and “private” wines were allowed to be vended only if the whole stock of the town was sold out. similarly to the forests, field-guards looked after the vineyards, where in some cases also cellars were built. (MJ I 79-80.)

⁷⁸⁵ MJ I 50. There are abundant sources for the free purchase and inheritance of vineyards from the 1630s onwards. Szabó, *Kecskemét szőlő és gyümölcstermelésének múltja*, 23-26.

By the late seventeenth century, six major districts of vineyards emerged, the *Máriahegy*, the *Budaihegy*, the *Vacsihegy*, the *Kőrösihegy*, the *Szolnokihegy* and the *Széktóihegy*. In the second half of the eighteenth century, several new plantations were founded in the closest deserted lands, i.e. at *Ballóság*, at *Talfája-Csődörhegy*, at *Kisfái*, or at *Ágasegyháza*. The extended vineyard areas were safeguarded by the so called field-guards ('csósz' in Hungarian) (Fig 243-244).

Less is known about orchards in the sixteenth century. It cannot be decided whether the surprisingly low expected incomes after fruit production (50 akçe in 1562),⁷⁸⁶ is a consequence of the negligible presence of horticulture, or if this feature is a consequence of some agreement between the town and the compiler of the defter roll. Studies on sixteenth-seventeenth century fruit production suggest that the fruit trees were planted most probably among vine-stocks, or in gardens (mezei kertek).⁷⁸⁷ It is also possible that as fruit trees were present in fields that were also utilized for other purposes (such as vineyards or hay-meadows), and they may have remained "unnoticed" in the tax rolls.⁷⁸⁸ The first reference to an orchard (fás kert) comes from 1598, in a testament. In this case the fruit garden is referred to as private property, so it had a similar legal status as field gardens or vineyards.⁷⁸⁹

8.9 DISCUSSION

Summing up briefly what can be assessed about the late medieval-early modern land management in the area of Kecskemét, first, it has to be stressed that the large-scale animal husbandry, which had already been present in the region from the Árpadian Age, became the most profitable section of economic production, and consequently defined the frameworks of agricultural production in the subsequent periods. In this context the late medieval desertion of settlements is closely related to this development, as the deserted village lands presented new areas for the free expansion of livestock husbandry. The developing market towns, among them Kecskemét, were the first settlements to integrate the deserted lands into their economy. In the fourteenth-fifteenth century, the first wave of annexed lands, located in the direct neighbourhood of Kecskemét became an integral part of the town but did not lost their legal independence. In the sixteenth and seventeenth centuries, the deserted lands were leased from various landlords yearly by the

⁷⁸⁶ Káldy-Nagy, *A budai szandzsák 1546-1590*, 349. In the same year Cegléd was supposed to pay 500 akçe, while Kőrös 250 akçe.

⁷⁸⁷ For the main tendencies of the late-medieval and early modern fruit production see Gyulai, *Archeobotanika*, 186-190.

⁷⁸⁸ There are abundant descriptions of fruit trees being in the vineyards in the eighteenth century- it seems that mostly students got into trouble for visiting vineyards and eating/stealing some fruits. Szabó, *Kecskemét szőlő és gyümölcstermelésének múltja*, 27-29.

⁷⁸⁹ MJ I 49 *Wég Lukács fás kertét testamentumban Soós Jánosnak hagyja...*[Lukács Wég let his tree garden to János Soós in his testament]

community of the town. The management of the rented possessions was controlled by the town magistrates. The magistrates divided and distributed parcels among the citizens; both extensive pastures and arable fields, called ‘gardens’ were allotted. These gardens were free leaseholds, so that by the seventeenth century the inhabitants of the market town in fact became freeholders of lands, while also remaining tenant peasants under Hungarian law. The private allotments were cultivated with the most modern instruments: the available sources on agrarian technology reveal that beside light ploughs, the most developed versions of asymmetric mouldboard ploughs were introduced and used in the study area. These instruments were directly connected with the development of special long strips of furrows and crop rotation system by previous scholarship. The presence of long strips of arable lands can be verified from written and archaeological evidence, but, obviously, earlier theories on the mouldboard plough as an indicator of rotation systems needs to be revised, as the presence of crop rotation in the early modern Great Plain area is contradicts widely-held views of the continuity of the so-called fallow systems from the middle ages. At the same time, this phenomenon draws attention to the need for further revision that looks more closely at how we interpret the role and development of field systems in the Danube-Tisza Interfluvium Region.

Theoretically, it is worth considering that the introduction and application of any land management schemes are the results of adaptation to ecological, technological, social, political possibilities and needs. As far as the basic technological and ecological preconditions for crop rotation were present in the area in the sixteenth-seventeenth century, the question is whether there was a need to introduce a more intensive system, or did the fallow system provide efficient frameworks for the agricultural production. The basic requisites of large-scale animal husbandry were the extended pastures, and the fallow lands largely contributed to the development of territorial bases for raising livestock. Nevertheless, in terms of arable farming, this question is not so obvious: the unstable political situation, the significant increase in population of the town, and the deterioration of climate might have induced the introduction of more intensive ways of farming which, according to the information for the contemporary presence of autumn-sown crops and spring crops, might have strained the frameworks of the fallow system.

The sources suggest a major reorganization of the field system in the mid-1500s, when the arable fields were merged into an inner zone of plough-fields close to the town, where new lands were broken up, and where fields might have been cultivated in a more intensive way. These new fields were probably meant to replace the arable fields on the deserted lands, one part of which was left fallow and used dominantly for large-scale animal husbandry from that time on.

The smaller parcels of allotted fields called gardens (*mezei kert*) became the basic units of agricultural production by the turn of the sixteenth century, the earliest of them being mentioned in

Úrrét, Talfája, Városfölde, and Ballószeg.⁷⁹⁰ One part of the gardens were used as vineyards and kitchen gardens⁷⁹¹ mixed with fruit trees, from the mid-sixteenth century at latest, and another part of the gardens was used for arable farming.⁷⁹² Concerning stock-breeding, it seems that beside draught animals and domestic animals or pigs kept in the inner city area, smaller flocks of sheep and herds of cattle were bred in this inner zone of fields in the sixteenth century.

This special division of agricultural zones however did not separate the management of rented lands and the town's inner areas. There were two main forms of connections: first, the inner areas and the puszta fields were interconnected at a personal level, since the wealthy stockmen, who were involved in large-scale animal husbandry were the most influential citizens of the town, most probably they were members of the town council, or fulfilled other key positions in the administrative body. Secondly, the connections had a more general territorial context, as most of the livestock bred on the deserted fields were in all likelihood assembled and sold at the annual fair held at Kecskemét.

Eventually, no definite answer can be given to the question of the type of field system applied. However, the presence of the most modern agricultural tools indicates that the choice between the fallow and the regulation system was not a question of technical development, but a very conscious adjustment to ecological factors and also to the demands as well as possibilities of the local community. Farmers innovatively opted for ploughs or management systems according to their local conditions and most possibly adopted them to their need. Subsequently, it may be a mistake to contrast various field systems and assert that one or the other was the only criterion of development. It is also possible that these systems were combined in an as yet unidentified and special way.

I suggest that one possible way to step forward in objectively specifying the nature of field system in the surroundings of Kecskemét would be to invest in and incorporate the findings of paleo-ecological research; the targeted analyses of pollen- and botanical remains especially the associations of weeds, which, being closely associated with cultivated crops, together with archaeozoology and faunal investigations, transfer information on the system of land management, such as the number of yearly ploughings, which is a reliable indicator of field systems. As regards the general directions of future investigation of management systems, another direction for future surveys is the systematic documentation of the physical frameworks of farming, such as the boundaries and boundary markers, which seems to be more constant features in the landscape than it was previously supposed, and I believe that beside arable farming and animal husbandry, other

⁷⁹⁰ 1598: MJ I 49; 1599: MJ I 53

⁷⁹¹ Especially cabbage gardens are mentioned. MJ I 51, 67.

⁷⁹² These functions might have been mixed; even in 1698 strips of hay-fields are mentioned among vineyards. (MJ I 178)

production fields, such as viticulture, horticulture or wood management should be more intensely studied.

Finally, the sources reveal that the economic production of Kecskemét was finely structured both at social and territorial levels in the sixteenth and seventeenth century. The legal context of land tenure exceeded the structures of feudal frameworks; the appearance of garden- and vineyard tenements as freeholds can be regarded as one important indicator of the town's relatively high state of urbanity. In addition, the division of cultivation zones around the town not only provided sufficient room for the sustenance of husbandry in a politically unstable situation, but brought considerable increase in the scales of farming, proposing that agricultural production (in the case of Kecskemét especially animal husbandry) can encourage urban development, and in that way it may contribute to our understanding of rural-urban relationships.

9. CONCLUSIONS

The aim of this dissertation was to examine the evolving landscapes in which medieval settlements around Kecskemét in the central part of the Danube-Tisza Interfluvium Region are set. More closely, my dissertation focused on presenting the changing pattern of settlements changed between the fourteenth and the seventeenth century. My study concentrated not only on the settlements themselves, but special emphasis was put on the interpretation of land management and in particular on the interactions between rural farming and urban development in the context of Kecskemét and its deserted village lands. Another important research task was to identify existing pre-modern landscape elements in the study area.

Due to gaps in contemporary documentary sources, the methodology of the dissertation had to be adapted to a framework that is partly based on non-textual source groups such as environmental, archaeological or cartographic data as well as written sources. In addition to this multi-disciplinary approach, my other intention was to break with the "traditional" chronological and thematic approach of earlier settlement studies and find appropriate contexts for an interpretation of results that correlated to the settlement history of the area studied here. In that way, it became possible to explore long-term tendencies and socio-economic changes as well as varying ecological factors. I included three case studies (Kecskemét, Szentkirály, Monostor) in order to demonstrate general patterns as well as models of local settlement development.

Settlement patterns

The first set of research questions connect to the development model and distribution pattern of the settlements in the study area. I concluded that there were two major features, namely

geographical location and environmental circumstances that influenced and contributed to the emergence or desertion of settlements in the study region. In addition, ownership was a further important factor in terms of development throughout the medieval and early modern period in this region.

The thirteenth and fourteenth century were defined by significant realignment in the settlement pattern, not only in the central part of the Danube-Tisza Interfluvial Region, but throughout the Hungarian Kingdom. This transformation was influenced in part by changes in economic and social structures, and accelerated by the impacts of the Mongol Invasion in 1241-1242. The period witnessed a number of additional changes such as developments in agricultural techniques (for instance the increasing use of the heavy plough for turning the soil over to greater depths and crop rotation). The appearance of above-ground, multi-roomed houses instead of semi-subterranean huts and the building of private representative residences were other important elements in the process.

The rearrangement of settlements in the Danube-Tisza Interfluvial Region was notably influenced by movements of Cuman people into the area from the second half of the thirteenth century giving a special local direction to development. After the Mongol Invasion, sizeable parts of the deserted village lands were let to Cuman kindreds. The Cuman tribes, originally invited to the country for military reasons but subsequently redefined as new settlers, were allowed to move into special and defined territories in the Kingdom, onto depopulated royal estates as well as private lands. It is important that the settlement of the Cumans marked a special adjustment to existing frameworks and potential prospects for making a living in the area. Along with the integration of the Cumans, the development in the settlement system was further affected by the transformation of both royal and private estate bodies in the thirteenth-fourteenth century. The documentary sources suggest that large royal estates were located from the Árpadian Period till the first half of the fifteenth century in the central part of the Danube-Tisza Region, preventing the formation of extended private lordships. Probably, significant parts of deserted or non viable royal properties (which were not populated by Cumans) were reorganized and attached to surviving and/or developing local market centers such as the later towns of Kecskemét, Cegléd or Halas. The fact that clusters of deserted early villages are typically found in the vicinity of later urban centers can be regarded as an indicator for this rearrangement. Regrettably, in the absence of detailed written evidence and archaeological data, it cannot be decided to what extent the deserted early settlements were destroyed by the Mongols in 1241-1242. Were these lands subsequently attached to other settlements as physically destroyed and depopulated territories or did these sites (or at least some of them) survive the Mongol Invasion so that their disappearance can be connected to some conscious reorganization process. Archaeological evidence exists that the landscape was not entirely empty

with possibly a number of local communities surviving the Mongol incursions (for instance Monostor, Lak and Alpár). Accordingly, the most apparent sign of transformation in the second half of the thirteenth and in the fourteenth century was the presence of numerous deserted village sites around developing village nuclei and the expansion of Cuman settlements which seem to be less permanent in character.

The late fourteenth and fifteenth century is characterized by an apparent nucleation process in the study area resulting in the emergence of few local market centers and a larger body of villages. Looking closer at the hierarchy of settlements in the area between the two dominant urban cores of Szeged and Pest, Kecskemét and Cegléd became noteworthy market towns with similarly moderate urban functions. Their closest neighbors were Kőrös, Szolnok, Csongrád, and Halas, all characterized by minor urban functions concerning the organization level of town administration or economic functions. The earlier temporary 'dwelling sites' of the Cuman population were replaced by a solid network of nucleated villages whose morphology, architecture, and material culture reflect a comprehensive integration with and assimilation to Hungarian culture. However, the arrival of the Cumans established a new pattern characterized by larger and coherent bodies of lands owned by Cuman landlords, lying between the sizeable lands of market towns and smaller 'islands' of Hungarian villages.

The nucleation process continued in the late fifteenth-sixteenth century; in this period three main chronological phases and types of settlement desertion can be observed. It is not easy to determine which settlements had better prospects for survival. As a general tendency it seems that most of those villages that were inhabited in the sixteenth century are among those which occupied or continued earlier Árpád Period village sites such as Szentkirály, Bene, Baracs, Lajos or Mizse. At the same time, it seems that fifteenth-century Cuman habitation settlements with no known Árpád Period predecessor were more likely to disappear such as at Bugac and Zomokzallas. Environmental factors such as fertility and type of soils and the closely connected economic potential of fields especially given the introduction of new kinds of plows must be an important, however not yet explored aspects of this process. Climate change connected to the onset of the cooling period known as the Little Ice Age was possibly also among the reasons for abandonment as was demonstrated in connection with Monostor.

Site location is another key issue in understanding the reasons behind this phenomenon. It seems that those sites which remained viable in the longer term were located along roads carrying major traffic, suggesting that the communication networks of the Árpád Period were used in later centuries. The growth of large-scale animal husbandry, and more importantly, the expansion of animal trade might have served at least partly as a background for either the survival or desertion of

a settlement. It is apparent that all villages which were probably involved in the raising and trading of animals are situated along major traffic routes.

The first wave of desertion concerned several of the Cuman sites established early, most probably impermanent dwellings were deserted before 1500 (such as Zomokzallas, Köncsög and Bugac). A second wave of abandonment can be ascertained around the time of the Ottoman conquest of Hungary. It is remarkable that some villages, for instance Ágasegyháza, Monostor, Borbásszállás, appear in documentary sources and/or archaeological material as inhabited sites in the early sixteenth century. However, the first Ottoman defter in 1546 records them as deserted lands, which suggests that their depopulation can be directly connected to the Ottoman occupation of the area. Interestingly, all these deserted lands had been noted as being rented/managed by the citizens of Kecskemét from the year 1546 which means that there was no long break or intermission in the cultivation of the village lands after their abandonment. In my interpretation, this pattern raises the issue of whether the disappearance of settlements was the direct result of wartime destruction or whether it was a form of planned evacuation of settlements initiated by the landlords or the inhabitants themselves.

The documentary evidence suggests that the number of villages remained relatively stable during the first decades of the Ottoman occupation until the Fifteen-year' war; all those villages that were recorded as being inhabited in 1546 were registered as villages in 1590. The most intensive phase of desertion occurred between 1591 and 1606 when documentary sources report extensive destruction throughout the Interfluve area. In this period, literally all settlements were abandoned except for the three market towns of Kecskemét, Nagykőrös and Cegléd.

Lessons from three case studies

In the dissertation I included Monostor, Szentkirály and Kecskemét as case studies to demonstrate various models of development. All three settlements are known to have existed from the eleventh century. Kecskemét represents an urban development scheme characteristic on the Great Plain Region. Szentkirály was populated by Cumans in the thirteenth century. Thus, its medieval history represents the development of a typical "Cuman village". Monostor, owned by Hungarian landowners throughout the medieval period, together with a short-lived Benedictine monastery, reflects yet another model of settlement development. Both villages are known to be deserted lands from the late sixteenth century, becoming rented, and later fully owned properties of Kecskemét.

At *Monostor*, I applied various research techniques; field-walking, excavation, aerial photography, geophysical survey were carried out in addition to the collection of documentary and cartographic material. I compiled the archaeological topography of the territory which allowed me

to deduce that there were two main cores to settlements, one in the southern Alsómonostor part and another in the northern Felsőmonostor area. Dispersed settlement types were also located by these nucleated villages; archaeologically appearing partly as sequences of small concentrations of surface finds from the Árpád Period, and as yet smaller concentrations of sixteenth-seventeenth century as well as eighteenth-nineteenth century pottery, which were not interpreted as ‘village sites’, but rather as the possible traces of the earliest dwellings or as isolated farmsteads in this area.

Despite the scarcity of documentary sources, the multi-disciplinary source material permitted conclusions to be drawn on the settlement history and settlement morphology within the territory. The dispersed farmsteads and the village at Alsómonostor were deserted in the early fourteenth century at the latest based on surface finds, while the Felsőmonostor settlement was continuously inhabited from the eleventh to the late sixteenth century. Concerning the pattern of settlement, it was noticeable that there was a difference in the extent of the deserted Árpád Period features and late medieval settlement sites at both Alsómonostor and Felsőmonostor, namely, that the deserted early sites expanded to areas lying 103-111m above sea level and were often located on areas above lakes or swampy areas, while late medieval settlement features avoided areas below 108m above sea level.

Lacking systematic excavation of the deserted villages themselves, the exact date and cause of their abandonment is unknown. Searching for the reasons for their abandonment, I correlated my observations to recent climate studies which describe the early fourteenth century as the beginning of a cooling period with more precipitation. In my understanding, this suggests that one possible reason why the low-lying areas at Monostor were deserted may be the rise in ground water levels related to climatic change. The medieval village at Felsőmonostor was investigated by field survey and aerial photography. Here, the relation between the settlement and the monastery is essential from both chronological and morphological point of view. The results of the field surveys indicate that the early village surely preceded the foundation and the building of the monastery and the first foundation trenches of the monastery’s walls cut the graves of a row cemetery, opened around the mid-eleventh century and closed by the mid-twelfth century. The preliminary results of the excavation show that the buildings were abandoned in the early fourteenth century, which might be connected to changes in land ownership around the mid-fourteenth century. Among other elements of the villagescape, the parish church was surveyed and some parts of the street (or one of the streets?) were identified on aerial photos, an observation which suggests that the late medieval site at Felsőmonostor was a street-village-type settlement.

A similar interdisciplinary approach was employed *Szentkirály*. Beside the results of field surveys, excavations and aerial photography were conducted by myself. During the investigation I

relied on observations by András Pálóczi-Horváth who had conducted surveys of the village territory for thirty years. In terms of topography, I assumed that there were three major settlement cores with parish churches in the territory of the later village during the Árpád Period, none of which have a presence in the surviving contemporary written documents. The early sites are known from field walking projects. Thus, their detailed chronology or histories are not available while the archaeological find material suggests that all these early settlements were deserted at latest by the second half of the thirteenth century. At around this time or not much later, Cumans arrived to the abandoned land; their earliest presence is confirmed by the solitary grave of a highborn Cuman man dating from the end of the thirteenth century.

We do not have information on where this early Cuman community lived; there is a suggestion in the scholarly literature that they did not have fixed settlement(s), but rather short-lived dwelling sites in the area. Eventually, the Cumans chose the site of their permanent settlement around the ruins of one deserted Árpád Period church and village. This settlement is first referred to as Szentkirály in 1354. Their site selection clearly demonstrates that their settlement process was influenced by the former habitation pattern of the Árpád Period rural population. The archaeological investigations revealed that the transitional phase of the Cuman settlement process ended in the first half of the fifteenth century when the first fixed houses were built.

In terms of village morphology, my investigations further confirmed the opinion of András Pálóczi-Horváth that the late medieval village was in fact settled at the junction of the roads that led from the direction of Kecskemét towards crossing points on the Tisza River at Kécske (Ug) and another road, which led from the direction of Kőrös to Alpár. Several sections of this road, identical with the main street of the late medieval village, were excavated by both Pálóczi-Horváth and myself. My investigations demonstrated presence of shallow ditches and fences along both sides of the road, indications that communal and private areas were physically separated in the late medieval period. The focus of the settlement in the late medieval and early modern period was still the Árpád Period church which was renovated and enlarged in the Gothic style in the fifteenth century.

One of the main contributions of András Pálóczi-Horváth to the study of the village was the identification and reconstruction of the plot system in the late medieval village. He argued that the houses were located at distances of 100-105m from each other, permitting the inference that the width of the spacious inner plot of each house was around 70-75m, an area of roughly 24 royal *ulnae*. The above-ground multi-roomed houses display substantial similarities in their building techniques and formal traditions; however, there were several variants of houses with complex heating systems. Two late medieval house-parts were excavated by myself. The structure of those houses appeared to be the same as was documented in previous investigations. Beside the houses, there were additional built elements in the yards such as stables, semi-subterranean chicken- and

pigsties, and especially, corrals. Interestingly, corrals were built right next to the houses in the yards, most probably giving the villagescape a special appearance. András Pálóczi-Horváth argues that there were five-to six wells operating at the same time in the settlement.

In sum, both case studies suggest that nucleated villages with regular row elements were the most characteristic morphological features in the late medieval rural landscape in the study area. At present no indications of irregular or agglomerated features in the period between the fifteenth and seventeenth century are known. The settlements became structured along streets from the early fifteenth century and the peasant holdings were divided into standard tofts, comprising the croft where the above-ground, multi-roomed peasant house was located within a small farmyard and large agricultural lands belonging to the same unit. The presence of sties and stables as well as the possible storage-function connected to the house suggests that the draught animals were kept. Storage areas were available in the farmyard area surrounding the house. The church and the churchyard are also key components of village sites. Market places were present in only the larger villages, many of which appear as market towns in the late fifteenth and sixteenth century.

Kecskemét represents a special regional model of urban development. Until the mid-fourteenth century, Kecskemét was one of the emerging villages, which had presumably the same potential to develop into an important local centre as any other village. The situation changed from the second half of the fourteenth century, as all surrounding properties were donated to private landowners, partly to Hungarian noblemen and partly to members of the Cuman elite. These processes presumably opened up new short-term prospects for Kecskemét, which remained part of the royal estates until 1439. The function of Kecskemét as a major node of commerce and political importance in the central part of the Danube-Tisza Interfluvium Region from the mid-fifteenth century is beyond doubt. Based on its advantageous geographical location, royal patronage encouraged the town's participation in regional and long distance trade. Spatial growth was another important factor in the development. The annexation and later renting out of nearby deserted village lands used as free expansion zones for agricultural production, played a significant role in the town's growth. Livestock husbandry, in particular the large-scale breeding of cattle and sheep, dominated. In this respect, the urban development of Kecskemét represents a special model, as instead of specialized crafts or industries, animal husbandry, especially the breeding of cattle and sheep were the two major motivating features besides trading that encouraged urbanization.

The most prominent urban indicator of Kecskemét was its role as a major traffic junction; eleven other central places could be reached from the town without going through other centers. Three annual fairs and a weekly market were among the major urban activities conducted in the town. In addition, the presence of self governance in the town, the royal customs office, and the

administration of salt production in the fifteenth century reflect Kecskemét's urban potential. In respect to judicial activities, Kecskemét's role as a Cuman seat should be mentioned. The presence of crafts can only be discussed from the mid-sixteenth century when data on three guilds (goldsmiths, furriers and tailors) and specialized craftsmen appear in the sixteenth century. Many of these activities were connected to the processing of animal products. The Ottoman tax rolls suggest that in 1559, around 20% of registered family heads were craftsmen, a datum corresponding to similar occupation proportions in major market towns in the Great Plain Region.

In terms of settlement morphology, the majority of my research questions connected to Kecskemét concerned its topographical development and the inner structure of the settlement. Based on the first detailed topographic representations, especially the map of the First Ordnance Survey, I defined topographic layers in the town plan and I could identify numerous continuous features in the present-day townscape. I suggest that the settlement developed from compound settlement clusters. More closely, I believe that the town developed from two medieval settlement cores, with two individual parishes. Thus, the dense, irregular clustered areas around the medieval parishes supposedly represent the earliest texture in the town plan. The second layer in the texture are the lines connecting the two early settlement cores with the inner market place around Saint Nicholas' and the outer market place (*Vásártér*, 'Fair-ground'), which seem already to have been laid out by the late fifteenth-early sixteenth century.

The Ottoman tax rolls and the emerging town protocols name twelve streets in the mid-sixteenth century showing that the town had a composite, multi-street plan by that time. The town was defended by a system of a ditch and palisades in the late sixteenth century although the origin of the defense system is unknown. Beside the two medieval parishes, the Protestant (Calvinist) church was a new feature in the townscape from the late-sixteenth century. There are uncertain data about the dating and the site of the earliest town hall while the first textual reference for building a new town hall is from the 1650s opposite Saint Nicholas'. Beyond the centre, there are many topographical features such as shops, workshops, mills, and wells, which are referred to in documentary sources even if their sites cannot be identified.

Although there is no direct information on the pre-modern extent of the town, there is little doubt that it was smaller than represented in the eighteenth century. Most possibly, the town expanded radially along the main channels of traffic in the directions of Kőrösi Street, Pálkai Street and Szentlőrinci Street during the seventeenth and eighteenth century. Accordingly, it appears that those small "squares", or rather convergences of four to five minor streets along these major streets on the eighteenth century town plan, might refer back to earlier stages in town development, namely, a former town boundary. In addition, it is obvious that the possible direction for the growth of the settlement in the seventeenth-eighteenth century was influenced by the location of the

Vásártér (the ‘Fair-ground’); the special spatial needs of the fairs presumably blocked expansion towards the South. Thus, the main expansion was directed towards the north- and northeast. Consequently, the more regular, grid-like street pattern north-, north-east of Dellő Lake may well be the remains of a planned expansion along the prolongation of Körösi Street, which probably happened in the seventeenth and eighteenth century period.

In conclusion, the available information on the pre-modern town plan of Kecskemét suggests the settlement most definitely had an urban character by the second half of the sixteenth century. The urban use of space is represented by the dense pattern of streets connected to high densities of houses located around the parish churches, the widened main streets, the accommodation of the market places, and the presence of the defensive structure around the town. Still, the pre-eighteenth century architecture of the settlement presumably resembled rural settlements, as the townscape was dominated by one-storied buildings built in the fashion of village houses.

Continuity is another relevant aspect in the townscape of Kecskemét; the factors displaying the strongest and most visible permanence in the townscape are the streets, both the name and the pattern of the streets, many of which still exist today. Beside the streets, the latest possible path of the former defensive ditch system and the sites of the five major gates had further major impact on settlement morphology. The line of the former town ditch represents a clear border, structurally dividing the “old town” area from the more recent suburbs. The market place around Saint Nicholas is one of the more important permanent features in the townscape. This area was the site of the weekly markets from the medieval period until the 1950s and is the spot where the main parish church, Saint Nicholas, the Calvinist church, the Town Hall, and the schools were located. In the eighteenth and nineteenth centuries additional important ecclesiastical foundations were all built at the edges of this central public space. This pattern clearly demonstrates that the central zone of communal life was always closely connected to the market.

Land management and settlement morphology

A further research step included collection and interpretation of the available sources on land management in the town’s hinterland which contributes to an understanding of the way interactions between the town and countryside contributed to urban development. Attempts in this study to reconstruct agricultural systems in the research area were obstructed by the fact that this region is supposed to be among the most degraded areas in the Carpathian Basin in terms of the survival of landscape elements. It was argued in previous studies that the intensive agricultural techniques of the twentieth century destroyed all features from former periods. Moreover, there is not a single medieval document that directly describes any aspects of medieval land management.

Consequently, when attempting to identify the main elements of the pre-modern land use around Kecskemét I imagined the medieval setting as a “virtual” landscape and incorporated the complex methodology invented primarily by prehistorians to explore those periods where written records are missing.

I described various features associated with land use such as the boundaries, the system and the pattern of the field system with special attention paid vineyards and orchards. Woodland in the context of the production and ownership was also considered since these are aspects that have not been highlighted in previous studies.

In terms of the visible frameworks of land management, I tested available information about boundary-lines in the study area. The research resulted in much more positive consequences and far clearer survey results than had been predicted. The outcomes of the present survey showed that it is worth dealing with the survival and field survey of pre-modern boundary marks, since they seem to be among the rare surviving and continuous pre-modern landscape features in the region. The data from perambulation charters indicates that the boundary markers were similar to those markers from other parts of the Carpathian Basin consisting of natural (trees, lakes or sand dunes) and artificial markers (mounds, ditches, wells). However, the absence of mentions of arable fields and the presence of extended meadows is conspicuous in the documents. Still, it is difficult to tell whether the landscape features described in the documents were peculiar or general traits in the area, whether these features were typical only in the boundary zones of the settlements, or whether they were characteristic in the given period when the descriptions were written.

The pattern of boundaries was apparently influenced by settlement nucleation and dispersion processes in the area. In the case of Kecskemét, the three main periods or phases in the extension of the town boundary obviously correspond to the main desertion waves in the area. Documents reveal that even if these lands were integrated into the territory of Kecskemét from an economic or administrative point of view, the majority of deserted village lands preserved their independent legal status. Before the late eighteenth century, they were rented by the town or its inhabitants from their various landowners. During Turkish times, both the Ottoman state and Hungarian landowners kept account of their possessions in this area. Hungarian landlords, even if they had only limited or no physical access to their properties, profited from letting the deserted lands. As soon as Ottoman forces were expelled from the Hungarian Kingdom, the legal status and the physical borders of the settlements were revised. The eighteenth-century boundary marks together with medieval place names are apparent on nineteenth- and also on twentieth-century maps. Thus, a test was carried out to see if it was at all possible to connect documentary sources and topographical representations with existing landscape features. The preliminary results of this experiment were unexpectedly

successful and demonstrated the long-term continuity of at least one part of the boundaries as well as boundary marks.

Another important factor in land management is the question of the field systems around Kecskemét. In that regard, the most important observation is that the town directly absorbed deserted village lands into its economy: the “puszta economy” meant that the better part of these lands were divided and distributed by the town magistrates as parcels among the citizens; both extensive pastures and arable fields, called ‘gardens’, were allotted. A few *puszta* lands were leased by private companionships of wealthy citizens. The ‘gardens’ were actually free leaseholds. In this manner, the people of Kecskemét became freeholders of lands, but remained tenant peasants under Hungarian law. It seems that the majority of these allotted fields was situated around the core areas of the town and was managed as arable land. Sometimes vineyards are also mentioned in or among the gardens, but animal husbandry is not referred to explicitly. The pattern of the fields can be, more or less, outlined from the Ottoman defter rolls. These rolls reveal that around 1550 the majority of arable fields around Kecskemét were pulled together into an inner zone of plough-fields close to the town where new lands were broken up. These new plough-lands were probably meant to replace the arable fields on the deserted lands, one part of which was left fallow and used dominantly for large-scale animal husbandry from that time on. Accordingly, the ‘garden’-type lands were separated from the zones of permanent pasture, preferably referred to as *nyaraló* (summer stall/pasture) or *telelő* (winter stall) in the documents.

Generally, this management system can be described as a model with agricultural zones around the town consisting of inner arable fields and pasturelands on faraway deserted lands. However, the system was more complex as there is data on intensive arable farming on some of the *puszta* lands such as Monostor and Bábonny, while there were notes concerning extended pastures, most probably winter stalls, in the close surroundings of the town in Borbás, Köncsög and Matkó in the sixteenth century Ottoman defter rolls. This means that the system of land management was not (or not only) determined by the wartime conditions in the sixteenth century. The population was capable of maintaining farming and in the context of deserted lands, the choice between arable farming and animal husbandry was not simply made on the basis of the distance from the town alone; other factors such as carrying capacity, soil fertility, or in case of stock-breeding the distance of pasture from the place of the market, were among the factors considered in the selection. Moreover, it is important that even if large-scale animal husbandry dominated the management of the deserted lands, documentary sources suggest that arable farming was also continuously present.

There is no definite answer to this question of the kinds of field systems found around Kecskemét in the sixteenth century given the present state of research. By investigating the finds of agricultural tool connected to arable farming, it could be shown that the presence of the most

modern agricultural tools indicates that the choice between field systems was not a question of technical development, but an adjustment to environmental factors and also to the demands as well as opportunities available in the local community. One possible way to move forward in objectively specifying the nature of field systems in the surroundings of Kecskemét would be the targeted analyses of pollen- and botanical remains, especially weed associations.

Woodland management and horticulture have received relatively little scholarly attention compared to animal husbandry in the study area. Through documentary and cartographic sources, it could be demonstrated that some elements of the woodland steppe part of the the natural ecology of the Great Plain Region, was present from the medieval period until the nineteenth century in this area, especially around Cegléd, Nagykőrös and Kecskemét. Beside woodland, forest pastures were also present as at Bugac, Szentkirály and Cegléd. Gardens, vineyards and horticulture are unexplored subjects as well within the field system of Kecskemét. The free legal status of the vineyards of Kecskemét played a key role in the early modern expansion of the town in addition to the produce from meadow gardens. Less is known about orchards. Fruit trees were planted most probably among vine-stocks or in gardens and thus may have remained “unnoticed” in the tax rolls.

As regards the general directions of future investigation of land management systems, another aim in future surveys should be the systematic documentation of the physical frameworks of farming such as boundaries and boundary markers which seem to be more constant features in the landscape than had been previously supposed. Beside arable farming and animal husbandry, other fields of production fields such as viticulture, horticulture or wood management need to be studied more closely.

Finally, both the patterning and inner structure of settlements was part of a dynamic system in the fourteenth to seventeenth century period in which the frameworks for living and production in the changing political, economic and circumstances were adopted. . Still, it is only partially possible to review the late medieval and early modern history of villages, even if most of the late medieval rural settlements around Kecskemét have been mapped. The biggest problem is insufficient information on the individual histories of settlements, for instance in terms of desertion, a crucial feature when describing overall patterns and changes in the landscape. The results of the present dissertation suggest that settlement desertion cannot be automatically interpreted as a synonym for destruction, as the abandonment of settlements could equally resulted from planned spatial realignments or economic reorganization of an area rather than from a series of random events. In this respect, the present discussion has highlighted and suggested some key directions for future detailed investigations.

The two in-depth case studies on the medieval settlements at Monostor and Szentkirály helped to reassess the general understanding of particular details of settlement history and

morphology in the region. The development of Kecskemét represents a special pattern of urban growth. Animal husbandry and trading were the two major motivating features that encouraged urbanization from the late fourteenth century; the full urban functions and character of the town developed by the mid-seventeenth century. From this period, Kecskemét became the dominant urban core in the central part of the Danube-Tisza Interfluvial Region. The townscape of Kecskemét comprised a special mixture of urban and rural features, highlighting the fact that urban functions and rural-type townscapes were dynamically and flexibly connected. The sources reveal that the economic production of Kecskemét was finely structured both on social and territorial levels in the sixteenth and seventeenth century. The legal context of land tenure exceeded the structures of feudal frameworks; the appearance of garden- and vineyard tenements as freeholds can be regarded as one important indicator of the town's relatively high level of urban development. In addition, the division of cultivation zones around the town not only provided sufficient room for the sustenance of husbandry in a politically unstable situation, but brought considerable expansion in the scale of farming suggesting that agricultural production (in the case of Kecskemét especially animal husbandry) can encourage urban development and contribute to our understanding of rural-urban interdependencies .

Finally, the dissertation has successfully demonstrated that a conscious synthesis of methodology and the application of multi-disciplinary source materials may greatly enhance the perception and interpretation of past landscapes. Hopefully, it will be regarded as an inspiration for future landscape studies in Hungary and will provide useful comparative material for international scholarship.

APPENDIX I.

Medieval settlements around Kecskemét- a database

In the previous paragraphs, I reviewed the general characteristics of late medieval villages. Nevertheless, the present dissertation would be incomplete without giving a short summary on the actual history and topography of late medieval village sites of the study region; this will give a closer insight into the problems when interpreting the late medieval topography of a region that is mainly without written documents. Methodologically, I accepted and followed the ideas of Pál Engel who, dealing with the late medieval topography of the area around the late medieval market town Karaš (in today Croatia, between Osijek and Valpovo), worked out a model for topographical reconstruction based on Ottoman defter rolls.⁷⁹³ I also incorporated some elements of the approach used by Gábor Hatházi, when summarizing the medieval topography of Cuman settlements in the Mezőföld Region.⁷⁹⁴ In addition, I considered the system of topography-oriented database used in the town atlas project.

Accordingly, in the following paragraph, I will present the catalogue of late medieval (fourteenth to sixteenth century) settlements around Kecskemét. This register is aimed at orienting the reader in settlement history and topography. Therefore the listing includes the most important/relevant written sources on the settlement, data on owners/inhabitants the possible date of desertion, and reference to archaeological data, if it is available.

Legend:

1. Location.
2. Dates of mentionings, with the name of the settlement. I indicate the type of settlement as it original form how the settlement was referred to.
3. Names of owners, with the date of the reference in brackets.
4. Short history, with possible date of desertion (if it was deserted).
5. Reference to archaeological data (literature).
6. List of scholarly references.

⁷⁹³ Engel, *A Drávántúl középkori topográfiája*; This territory, alike to my study region, mainly lacks contemporary written sources, was subjugated by the Ottoman empire, and which area became totally deserted by the late seventeenth century.

⁷⁹⁴ Hatházi, *A kunok régészeti emlékei a Kelet-Dunántúlon*, 201-231.

Adacs

1. Located in the territory of today Kunadacs. The location of the modern village is not identical with the medieval site.
2. possessio Adach (1454), Adach allodium (1480), predium Adach in sedes Solth (1486), possessio Adach (1562), Adacs village (1546, 1559, 1562, 1580, 1590)
3. (no data)
4. Lacking historical and archaeological sources, the early history of the settlement remains hidden. In the fifteenth and sixteenth century Adacs developed as a village; the site was inhabited during the sixteenth century, deserted only after 1590.
5. (no data)
6. Bártfai-Szabó, Pest megye, 206, 291-292, 403-404, MOL DL 18368; MOL DL 14127; Káldy-Nagy, A budai szandzsák 1546-1590, 58-60.

Ágasegyháza

1. Located in the territory of Ágasegyháza, south-west of Kecskemét at Ágasegyháza-Karazsiasziget. The location of the modern village is not identical with the medieval site.
2. terram seu possessionem Agaseghaza (1353); possessio Agaseghaz (1359; 1429; 1486; 1504; 1509); Ágasegyház pusztá (1546, 1559, 1562, 1580, 1590); Agas Egyháza desertum(1676), predium Agasegyháza (1793)
3. Johanni filio Stephani filij Karla Cumano (1353, 1359); Sebastianus filius Johannis filius Egidius de Agaseghaz (1429); Georgius de Zwinyog (1486); nobilem Michaelis et Pauli filiorum condam Gregory litterati de dicta Agaseghaz (before 1504); Egregy Francisci de Harazth (1504, 1509), belongs to Kecskemét (1559)
4. The recent archaeological survey at Ágasegyháza clarified that there were more Árpadian Age settlements in the area. The archaeological material from the site of the late medieval village suggests that the site was habited in the late thirteenth century, thus the interpretation of the first written data from 1353, which refers to the territory as being deserted for a long time (*vacuum et a longi temporis spacio habitatoribus fore destitutam*), is dubious. In 1353, the land was donated to the Cuman John Karla. Parts of the fourteenth-fifteenth century settlement and the cemetery of the Cumans were excavated in the 1930s yielding distinctive Cuman-type material, thus, the late medieval settlement is usually referred to as a typical Cuman settlement. However, it is unclear whether the owners mentioned in the fifteenth century were in fact christened Cumans or Hungarians- it is possible that parts of the village land was owned by non-Cuman landowners as

early as the fifteenth century. The Zwinyog and Harazth families were surely of Hungarian origin. The settlement was noted as a habited site as late as 1525, but the earliest defter roll from 1546 recalls it as desertum, thus its desertion can be put between 1525 and 1546. Ágasegyháza remained a predium of Kecskemét until the post-WWII period.

5. Papp, Ásatások, 150; Szabó, Az alföldi nép, 36., 40-50; Rosta, Újabb eredmények

6. Gyárfás, Oklevéltár, 487-488; Gyárfás, Oklevéltár 498-499; Gyárfás, Oklevéltár, 593; Gyárfás, Oklevéltár, 720-721; Gyárfás, Oklevéltár, 727-728; MOL DL 59145; MOL DL 59739; MOL DL 86568, Káldy-Nagy, A budai szandzsák, 178, Szakály, Pest-Pilis-Solt megye, 195.

Alsóalpár

1. The medieval site is supposedly located in the territory of the today Alpár village.
2. terra Olpar (1266) villa Alpar (1276), villa Halsoalpar (1354), possessio Pyspekalpar (1488), Alsóalpár village (1546, 1559, 1562, 1580, 1590)
3. Nana comes filius Pouse comitis de genere Kolan (1266); Dominican convent of the Island (today: Margaret Island, Budapest)
4. István Bóna-Gyula Nováki, Alpár bronzkori és Árpád-kori vára [The Bronze Age and Árpadian Age earthen fortification of Alpár] Cumania 7, Kecskemét: Bács-Kiskun megyei Múzeumok Igazgatósága, 1982.
5. József Laszlovszky, "Dedi eciam terram, que adiacet circa aquam, que vocatur Tiza".Adatokaz 1075-ös garamszentbenedeki oklevél helyneveinek lokalizálásához" ["Dedi eciam terram, que adiacet circa aquam, que vocatur Tiza": Contributions to the localization of place-names in the deed of Garamszentbenedek from 1075], Zounuk 1 (1986): 5-24.
6. Budapest történelmének okleveles emlékei, 89; MOL DL 942; Gyárfás, Oklevéltár, 491; Gyárfás, Oklevéltár, 697-699; Káldy-Nagy, A budai szandzsák 1546-1590, 78-79.

Alsófilipszállás

1. In the territory of the today Fülöpszállás village.
2. Filipszállás pusztá (1546, 1559), Alsófiliszállás village (!) (1562, 1580, 1590)
3. (no data)
4. (no data) The territory was abandoned until the 1560s, from 1562 Alsófilipszállás is recorded as inhabited village. It was deserted after 1590.
5. (no data)
6. Káldy-Nagy, A budai szandzsák 1546-1590, 84-86.

Aranyegyháza

1. Located in the territory of today Szabadszállás-Ágosotonhalmi-dűlő.
2. a parte Araneghaz (1359), Aranyegyháza puszta (1546, 1559)
3. (no data)
4. Few data is known about its history. The archaeological research of Kálmán Szabó in 1934 revealed a part of an Árpadian Age settlement below the fourteenth century cemetery he also researched. The cemetery yielded fourteenth-fifteenth century archaic Cuman-type material, which suggest that the area was habited by Cumans from the fourteenth century. Other parts of this cemetery was excavated in 1961. The date of desertion is unknown, presumably uninhabited before 1500. In 1546 the land is described as deserted 'puszta', near Beszter village. Aranyegyháza was not recorded in the 1562 defter roll, in 1580 it is mentioned together with Beszter village, probably by that time merged into its territory.
5. Szabó, Az alföldi nép, 20., 43-46; Régészeti Füzetek 1962, 90; Régészeti Füzetek 1963, 17; Rosta, Újabb eredmények.
6. Gyárfás, Oklevéltár 498-499; Káldy-Nagy, A budai szandzsák 1546-1590, 90; Káldy-Nagy, A budai szandzsák 1559, 196.

Belchehorhan

1. Its exact location is unknown. In 1423 Belchehorhan neighbours Mindszent and Boldogahaza, which suggests that it was located north-north-east of Kecskemét.
2. predium Belchehorhan (1423)
3. Comanum nostrorum.... Layos, filii Balzha, capitaneus eorundem (1423)
4. (no data)
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-202.

Baracs

1. Located in the territory of today Kunbaracs. The medieval village site and the modern village do not coincide.
2. Borocho (1264), possessio Homokbarach (1508), Baracsa village (1546, 1559, 1562, 1580, 1590), Baracz (1552), Baracz Desertum (1676)
3. Andreas de Barocz, sin Valentinus de eadem (1440), Barnabae Pandi de Barach (1453), the daughters of the deceased Gregorius de Barach, namely Ilona, Jusztin, Zsófia, Katalin, and Dorottya (1508), keczkeméti nyaraló [summer pasture of Kecskemét] (1676)

4. There are no documentary sources about the existence and history of the pre-fifteenth century settlement. In this respect, Kálmán Szabó's excavations provided fundamental information; he excavated the church and likely one part of the medieval cemetery around it; moreover, he reported on finding the traces of late medieval (fifteenth-sixteenth century) houses. The church had a Romanesque phase, and was rebuilt as well as enlarged during the fifteenth century. Among the graves, Szabó found fourteenth century, Cuman-type hair-rings decorated with sheet silver shperes. This suggest that the site had been habited from the late Árpáadian Age onwards. Yet, it is not clear, from what period the early settlement is dating: was it an earlier village site which was occupied by the Cumans, or was it the Cuman population that started the settlement in the late thirteenth century. The name 'Baracs' is of Cuman-Kipchak origin, thus the late medieval village was named after the Cuman people, who resided there at latest from the late fourteenth century.

The documentry sources suggest that in the fifteenth-sixteenth century period the settlement was owned by a local noble family, who called themselves as de Barach in Hungarian 'Baracsi'. In 1508, the Baracsi family in fact had two possessions named Barach, between the two it was Homokbarach that was located in Pest County.⁷⁹⁵ The Ottoman defters propose that the settlement was habited throughout the sixteenth century, and was among the most populous villages of the region, with considerable taxes. In 1552, the inhabitants paid the subsidium after 20 portae, this data correlates with the Ottoman defters, in which 25 tax payers are listed in 1562. In 1559, 23 houses were counted at the settlement by the Ottomans. The settlement might have became deserted during the fifteen' yeaars war, or soon afterwards, as the settlement is described as deserted land in 1676, which is used by Kecskemét citizens as summer pastures.

5. Szabó, *Az alföldi magyar nép*, 46, 84, 130, 132-133.

6. Bártfai Szabó, *Pest megye*, 10-11; MOL DL 13566; MOL DL 15667; MOL DL 14677; Csánki, *Magyarország történeti földrajza*, vol. 1, 25; Csánki, *Magyarország történeti földrajza*, vol.3, 318; Bártfai-Szabó, *Pest megye*, 323-324; Szakály, *Pest-Pilis-Solt megye*, 195, Káldy-Nagy, *A budai szandzsák 1559*, 193-194; Káldy-Nagy, *A budai szandzsák 1546-1590*, 113-114, Benedek-Kürti, Bene, Lajos és Mizse oklevelei, 54, 66; Velics-Kammerer, *Magyarországi török kincstári defterek*, vol 1, 123-124, Rosta, *Új eredmények*, 192.

Bene

1. Located in the territory of today Ladánybene. The location of the modern village is not identical with the medieval site.

⁷⁹⁵ The other Barach was called at that time Dwnabarach, and situated in Fejér County, Sedes Solt. This settlement still exist today and known as Baracska.

2. villa Beune (1385); Beune (1458) Benezallasa (1462, 1469), Bene village (1559) Bene desertum (1676)

3. (no data)

4. The early history of the site can be sketched from archaeological data. The church as well as cemetery of this early community had been researched. According to the findings, the burials show continuity (among the disturbed graves S-ended lockrings were found together with fifteenth century coins, Cuman-type silver buttons, and pressed sheet ornaments. The church was a simple one-naved building with semicircular apse, which might have been enlarged according to the groundplan published by Kálmán Szabó. The territory had been habited from the Conquest Period, the early Árpadian Age village most probably was destroyed by the Tartars in 1241-1242, which is attested by the hoard of coins and jewelry found at a smaller Árpadian Age village (farmstead?) site north-west of the church. Likely, the territory of the deserted village was occupied by the Cumans, whose settlement is referred to as Benezallasa in 1462 and in 1469. The documentary sources confirm that the settlement was small, but habited site during the sixteenth century. It is notable, that there are two sites named as 'Bene' in the defter rolls, one is a deserted land, and the other is Bene village. In 1559, 9 houses were recorded. In 1676, the area is deserted, and used by Kecskemét citizens as summer pastures ('nyaraló').

5. Szabó, Az alföldi magyar nép, 35, 38, 46, György V. Székely, "13. századi kincslet Ladánybene-Hornyák dombról," [Thirteenth century hoard from Ladánybene-Hornyák domb] *Cumania* 8 (1984): 209-272, György V. Székely, "Ladánybene-Templom-dűlő," *Régészeti Füzetek* Ser. I. 34 (1981): 75.

6. Csánki, Magyarország történeti földrajza, vol. 1, 25; Káldy-Nagy, A budai szandzsák 1559, 195; Káldy-Nagy, A budai szandzsák 1546-1591, Benedek-Kürti, Bene, Lajos és Mizse oklevelei, 19, 66; Szakály, Pest-Pilis-Solt megye, 195.

Borbásszállás/Mindszent

1. The once land of the medieval village merged into the territory of Kecskemét in the sixteenth century. The site is located east of the town.

2. terra vacua et habitatoribus a tempore, cuius non extat memoria, destitutas Mendzenth (1354), Borobaszallas ad sedem Comanorum Halas (1436); Mendzenth, alio nomine Barabashaza vocatis (1493); Borbásszállás pusztá (1559).

3. Petro filio Bwchwr ac Nicolao et Johanne filiis, necnon Baramak filio Kabak, et Gallo filio Wezthech fratribus scilicet suis (1354), managed by Kecskemét people (1559)

4. The area, as well as the late medieval village site surely had Árpadian Age settlement phase. The ruin of the church had been excavated by Szabó in 1923. It was an Árpadian Age simple one-naved

building with semi-circular apse. According to the donation charter from 1354, the settlement became deserted long before that date, when it was donated to Cuman landowners. Recent scholarly opinions agree that the change of name is one typical example for the Cumans' integration and conversion, which manifested in the spreading tradition of Christian name giving. (Barabaszallasa means 'the dwelling of Barnaby'). The territory presumably deserted before or around the Ottoman Occupation, since it is referred to as deserted land from 1546 onwards. In 1559 The territory was managed by Kecskemét people, who had two dwellings there.

5. Szabó, Az alföldi magyar nép.

6. Csánki, Magyarország történeti földrajza, vol 1, 25; Gyárfás, Oklevéltár, vol 3 97, , 597, 706-707; Káldy-Nagy, A budai szandzsák 1559, 178; Káldy-Nagy, A budai szandzsák 1546-1590, 144; Rosta, Új eredmények, 198-199.

Bugac

1. The medieval settlement is located in the territory of today Bugac village at Bugac-Templomkút. The location of the modern village is not identical with the medieval site.

2. Bugaz (1391), descensus Bwgachhaza (1451), Bugaczhaza (1469), Bugac puszta (1580, 1590), Bugacz desertum (1676)

3. Blasio de Bugaz (1391), Benedictus Bugacz de Bugachaza (1469)

4. The name 'Bugac' is of Cuman-Kipchak origin, thus the settlement is usually connected to the Cuman population. No earlier Árpadian Age settlement traces were detected at the late medieval village site until now, however, it has to be noted that except for field surveys including field walking and aerial photography, no excavation had been carried out.⁷⁹⁶ The settlement is likely among the early founded (Cuman name), short-lived dwellings of the Cumans: it was probably populated in the fourteenth century, but deserted before the Ottoman Occupation. There are no direct references on the owners, the sources suggest that the 'de Bugacz'(or 'Bugaczi' in Hungarian) family might have been among the owners. The sixteenth century defter rolls suggest that the deserted land was among the territories from which less tax was expected. In 1676, the land is mentioned as a ploughland of Kecskemét citizens. From that time on, until 1910, the territory belonged to Kecskemét.

5. Rosta, Újabb eredmények, Rosta, Templomos helyek.

⁷⁹⁶ However, in 1934, the local newspaper reported about the discovery of the village site at the Templomkút, referring to Kálmán Szabó, who proclaimed that he was going to carry out excavation at the site. Most likely this research did not happened, as no further scholarly works by Szabó, or newspapers wrote about it. The report appeared in: *Kecskeméti Lapok*, 1 Sept, 1934.

6. MOL DL 16885; Bártfai-Szabó, Pest megye története, 199, Gyárfás, Oklevéltár, vol 3, 199, 518; Csánki, Magyarország történeti földrajza, vol. 3, 321; Káldy-Nagy, A budai szandzsák 1546-1590, 159;

Buzganzallas

1. Undefined. according to recent opinions, maybe identical with the later Felsőfilipszállás.
2. descensus Buzganzallas (1423)
3. (no data)
4. (no data)
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206; Rosta, Újabb eredmények, Káldy-Nagy, A budai szandzsák 1546-1590, 249..

Chederhamka

1. Presumably located north of Kecskemét, in the area known as Csődörhomoka in the nineteenth century.
2. predium Chederhamka (1423)
3. In 1423 the land was managed by Cuman population residing at Zombatszallas and Buzganzallas.
4. No further data other than the mentioning in 1423, when the territory was managed by the Cumans who had arable fields and hay fields there.
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206.

Chokashege

1. This location can be put to the territory of today Nagykőrös, south of the town.
2. predium Chokashege (1423); Sylva Chokas (1740), Csokás (1793)
3. In 1423 the land was managed by Cuman population residing at Zombatszallas and Buzganzallas.
4. No further data other than the mentioning in 1423, when the territory was managed by the Cumans who had arable fields and hay fields there. This area is depicted as sparsely wooded in 1793, thus this area was maybe utilized as wood pasture.
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206.

Félegyház

1. The medieval village is located at Kiskunfélegyháza-Templom halom in the north-eastern boundary of today Kiskunfélegyháza.
2. Feelegyhaz (1389), possessio Feleghez (1424), Feledhaz (1526), Félegyház pusztá (1559, 1562, 1580, 1590)
3. Royal property (before 1424); Queen Borbála (1424)
4. According to the excavations at the Templomhalom, the settlement at Félegyháza had an Árpadian Age phase. Probably, the site was deserted after the Tartar Invasion. The earliest phase of the village church is dating from the Árpadian Period. The cemetery was used continuously from the Árpadian Age till the early sixteenth century. The territory was royal, from 1424 the Queen's property. The site was habited until the early sixteenth century, as Feledhaz is represented on the map by Lazius from 1526. There is no documentary source on the nationality of the inhabitants. In 1562, the territory was managed by Kecskemét citizens. The territory remained deserted until the eighteenth century.
5. Alajos Bálint, "A Kiskunfélegyháza-Templom halmi temető" [The cemetery at Kiskunfélegyháza-Templom halom] Móra Ferenc Múzeum Évkönyve (1956): 55-89; András Pálóczi-Horváth, "Kun betelepítés Kiskunfélegyháza környékén és a város korai története" [Cuman immigration in the surroundings of Kiskunfélegyháza, and the early history of the town] Múzeumi Kutatások Bács-Kiskun megyében 1995-1996 (Kecskemét, 1997); Rosta, Templomos helyek.
6. Hornyik, Kecskemét város története, vol 1, 198; Káldy-Nagy, A budai szandzsák 1546-1590, 239-240.

Felsőalpár

1. Located in the territory of the today Lakitelek (Lakitelek-agrokémiai telep) village. The medieval site is not identical with the recent village location.
2. terra Alpar (1075), possessio Alpar (1330, 1338, 1340, 1341, 1443), Felalpar possessio (1488), Felsőalpár village (1546, 1559, 1562, 1580, 1590);
3. royal donation to the Benedictine monastery of Garamszentbenedek (1075), Benedictine monastery of Garamszentbenedek (1330, 1338, 1340, 1341, 1443, 1488); Kecskemét (1718)
4. The settlement site had been inhabited from the eleventh century. It seems that the territory was part of the royal estate system, from which King Géza I donated more lands, among them terra Alpar to the Benedictine monastery of Garamszentbenedek. It seems that the village land was possessed by the monastery throughout the medieval period. In the fourteenth century, there are reports about disputes on the boundaries of Alpar with the neighbouring villages, among them the

vice comes of Szolnok County (1340), and Pósa of Szer (1338). In 1341, the territory of the village was perambulated, but, unfortunately only fragmentary information is available about it. The site was continuously inhabited in the sixteenth century. In 1580, Felsőalpár village was recorded together with Alpár puszta, besides, the inhabitants of Felsőalpár managed (ploughed) the deserted lands of Lak in that year. The exact date of its desertion is unknown, by 1718 it is a ‘puszta’ land, used by Kecskemét.

5. Szabó, Az alföldi magyar nép; Régészeti Füzetek 1984, 117; Laszlovszky, Dedi eciam terram.

6. Hornyik, Kecskemét története, vol 1, 191-197; Anjou-kori Oklevéltár, vol 14, 353; Benedek-Zádorné, Jász-Nagykun-Szolnok megyei oklevelek, 229; Anjou-kori okmánytár, vol 4, 20; Anjou kori okmánytár, vol 10, 169-173; MOL DL 13715; Gyárfás, Oklevéltár, vol 3, 701-702; Káldy-Nagy, A budai szandzsák 1546-1590, 243-244; Káldy-Nagy, A budai szandzsák 1559, 185; Hornyik, Kecskemét város gazdasági fejlődésének története, 57.

Felsőfilipszállás

1. Presumably identical with the modern village Fülöpszállás.
2. Felsőfilipszállás puszta (1559, 1562, 1580, 1590)
3. (no data)
4. In 1562, the deserted land was managed by people from Alsófilipszállás, Szabadszállás and Mizse. In 1580, people from Alsófilipszállás and Szabadszállás managed the land who had dwellings (‘szállás’) there; they had arable fields, mowed hay, and paid pasture-tax after the territory.
5. (no data)
6. Káldy-Nagy, A budai szandzsák 1546-1590, 249; Káldy-Nagy, A budai szandzsák 1559, 181;

Ferencszállás/Karacsór

1. Today in the territory of Petőfiszállás, at Petőfiszállás-Ady utca.
2. descensus Karachon (1418), Ferencszállás village ‘más néven Karácsor’ [alio nomine Karácsor] (1559)
3. nobilis Nicolaus filii Karachon (1418)
4. Limited information is available about the settlement at Ferencszállás. Archaeological surveys suggest that the late medieval village was inhabited by Cuman population from the thirteenth to the sixteenth century, deserted after 1590. Those settlement features excavated at Ferencszállás-Tőzeges might be a temporary dwelling site of the Cumans.

5. MNM Adattár (Database Collection of the Hungarian National Museum) 125/1894: 52-62, 67, 68-71; István Sztrinkó, ed., Szabó Kálmán válogatott írásai [The selected writings of Kálmán Szabó], (Kecskemét: Katona József Múzeum, 1986), 36; Rosta, Templomos helyek, 144-145.
6. A zichi és vásoneői gróf Zichy-család idősb ágának okmánytára. Codex diplomaticus domus senioris comitum Zichy de Zich et Vasonkeo XII., ed. Pál Lukcsics (Budapest, 1931.), 112; Káldy-Nagy, A budai szandzsák 1559, 179; Káldy-Nagy, A budai szandzsák 1546-1590, 249-250.

Galambos

1. Located in Kiskunfélegyháza-Galambos.
2. Galambos puszta (1580), Galambos desertum (1676)
3. (no data)
4. Probably deserted before 1500.
5. (no data)
6. Káldy-Nagy, A budai szandzsák 1546-1590, 261; Szakály, Pest-Pilis-Solt megye, 195

Gengelteleke

1. Undefined.
2. predium Gengelteleke (1423)
3. (no data)
4. (no data)
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206.

Homytha

1. Undefined.
2. predium Homytha (1423)
3. (no data)
4. (no data)
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206.

Izsák

1. Located in the territory of today Izsák village, however, the medieval village site is not identical with the today settlement.

2. possessio Isak (1421), predium Isaakeghaza (1426) possessio Isakeghaz (1504), Izsák village (1546, 1559, 1562, 1580, 1590)
3. (no data)
4. Lacking systematic archaeological research of the site it is only hypothesized that the site of the late medieval village is identical with the Árpadian Age village called Colon. Inhabited until 1590, deserted afterwards.
5. (no data)
6. Dezső Csánki, Magyarország történelmi földrajza a Hunyadiak korában [The historical geography of Hungary in the age of the Hunyadis], Budapest: Magyar Tudományos Akadémia, 1890, vol 3, 124), Káldy-Nagy, A budai szandzsák 1559, 196-197; Káldy-Nagy, A budai szandzsák 1546-1590, 323-324.

Jakabszállás

1. In the territory of today Fülöpjakab at Fülöpjakab-Templomrét. The location of the modern village is not identical with the medieval site.
2. Jakabszállása (1342, 1343)⁷⁹⁷; Jakabszállása (1407, 1447); descensus Jakabzallasa (1452); descensus Jacobzallasa (1457); Jakabszállás village (1546, 1559, 1562, 1580, 1590), Jacob szallasa desertum (1676), predium Jakabszállás (1702)
3. Buthemer de Jakabszállása (1342, 1343), Petrus filius Jacobi, filii Buthemer de Jakabszállása (1407), capitaneatus in eadem Jakabzallasa (1452), ploughed by the Kecskemét people (1676)
4. According to the recent archaeological survey at the site, the lack of pre-thirteenth century material suggests that the site was populated by the Cumas in the thirteenth century, and was inhabited in the fifteenth-sixteenth century; deserted after 1590.
5. Szabó, Az alföldi magyar nép, Rosta, Templomos helyek, 146-147.
6. Györffy, Az Árpád-kori Magyarország, vol.3, 568; Gyárfás, Oklevéltár, vol 3, 481, 619, 625-627, 634, 683, 767-768; Káldy-Nagy, A budai szandzsák 1559, 194-195; Káldy-Nagy, A budai szandzsák 1546-1590, 323-324; Szakály, Pest-Pilis- Solt megye, 195.

Juhászegyház

1. Its exact location is unknown. Maybe connectable to Juhásztelek, mentioned in 1559 as located near Jakabszállás village.
2. Juhászegyház (1456), Juhásztelek pusztá? (1559)
3. (no data) Kecskemét (after 1456)

⁷⁹⁷ In fact in 1342 and in 1343 the settlement is not mentioned, only the Cuman owner, Buthmer, who is referred to as Buthemer de Jakabszállása in 1407. Gyárfás, *Oklevéltár*, 481.

4. Deserted village site, which had merged into the territory of Kecskemét at latest by 1456
5. (no data)
6. MOL DF 97.635, Kecskemét története, 114 , Káldy-Nagy, A budai szandzsák 1559, 195.; Káldy-Nagy, A budai szandzsák 1546-1590, 323.

Kerekegyház

1. Today situated in the territory of Kecskemét, the site is north-west of the town.
2. Kerekegyház village (1546, 1559, 1562, 1580, 1590), Kerek egyhaza (1676)
3. (no data)
4. Its history is hidden due to the lack of documentary sources. According to the excavation results of Kálmán Szabó the village was inhabited from around the twelfth century. The fourteenth-fifteenth century material resemble Cuman-fashion. The village was inhabited until the late sixteenth century, deserted after 1590. In 1676 the land was used ('sown') by the Kecskemét people
5. Szabó, Az alföldi magyar nép, 12.
6. Káldy Nagy, A budai szandzsák, 196; Szakály, Pest-Pilis-Solt megye, 195

Kis Balázs

1. In the territory of today Szabadszállás village.
2. Kisbalázs puszta (1546, 1559) Kisbalás village (1562, 1580, 1590)
3. (no data)
4. Deserted in 1546 and 1559, but from 1562 it is recorded as an inhabited village, deserted again after 1590.
5. (no data)
6. Káldy Nagy, A budai szandzsák 1559, 182, Káldy Nagy, A budai szandzsák 1546-1590, 362

Kisszállás

1. Located at Kiskunfélegyháza, at Kiskunfélegyháza-Kiskenfélegyházi tanyák 4.
2. Kisszállás village (1546, 1559, 1562, 1581, 1590)
3. (no data)
4. Almost no information available about this settlement due to the lack of documentary sources. According to the archaeological field survey the site had been inhabited from the fourteenth century. In the sixteenth century known as a populous settlement. Its name suggests that it was populated by Cuman population.
5. Rosta, Templomos helyek, 151-152; Rosta, Újabb eredmények, 179.
6. Káldy Nagy, A budai szandzsák 1546-1590, 371-372.

Köncsög

1. Located south of today Kecskemét.
2. Kempcegszallas (1436), descensus Kenchegszallasa (1475), Köncsög puszta (1559, 1562, 1580, 1590)
3. Very limited information is available about its history; the area was presumably (re)populated by Cumans from the thirteenth century. The settlement of the Cumans deserted at latest by 1559. In 1580 and 1590 it was 'in the hands of' Ferenc Török, a Kecskemét citizen. The medieval site had not been archaeologically identified.
4. (no data)
5. ? Rosta, Újabb eredmények.
6. Gyárfás, Oklevéltár, vol 3, 596, 666; Káldy-Nagy, A budai szandzsák 1546-1590, 387-388.

Kwnjakabhorhan

1. Undefined location. In 1521, a certain colliculum Korhan is mentioned in the peambulation charter of the border between Mizse and Vacs, that is north of Kecskemét. Another sources refer to sites named as Korhán and Korhán tava south of Kecskemét. According to Szabolcs Rosta, identical with Jakabszállása.
2. Kwnjakabhorhan (1423)
3. (no data)
4. (no data)
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 201-206; ; Benedek-Kürti, Bene, Lajos és Mizse oklevelei, 40.

Lajos

1. Located in the territory of today Lajosmizse.
2. possessio deserta seu predia layoswlese (1444), Lajos village (1546, 1559, 1562, 1580, 1590) Layos village (1567), Laios desertum (1676)
3. Gererth de Layoszallasa (1491), Johannes de Layos (1497),
4. Kálmán Szabó excavated two Árpadian Age village sites at Lajos in the 1930s (at Lajos-Subahalom and Lajos-Szörhalom). Moreover, he unearthed a part of a fourteenth-fifteenth century cemetery, at an undefined location, where he found Cuman-type earrings, the remains of headdresses and ornamented belt mounts. These archaeological data with the documentary sources suggest that the territory had been habited from the Árpadian period. In the 1490s, however, more

noble Cumans are mentioned from Layos, such as Gererth and Johannes. The village was habited throughout the sixteenth century. According to the socage-ordinance from 1567, there were 8 whole peasant plots (*integra sessiones*), 4 *inquilini* possessing houses, and 8 captains in the village. In 1577, a further socage-ordinance reports that there were 7 *integra sessiones*, 2 *inquilini sessiones*, 7 noble holdings in the village. In 1676 deserted, ploughed by the Nagykörös and Kecskemét people

5. Szabó, *Az alföldi magyar nép*, 12, 46, 60-61, 70

6. MOL DL 209809; Benedek-Kürti, Bene, Lajos és Mizse oklevelei, 15-16, 33, 35-36, 38-42, 67, 74; Káldy Nagy, *A budai szandzsák 1559*, 181-182; Káldy Nagy, *A budai szandzsák*, 397-398; Szakály, *Pest-Pilis-Solt megy*, 196

Laka

1. In the territory of today Lakitelek. the medieval village site is not identical with the location of the modern village.

2. *possessio* Laka (1488), *Lak puszta* (1562, 1580, 1590),

3. ?

4. Not much is known about its history. Kálmán Szabó excavated a twelfth-thirteenth century village site there, and found the remains of the late medieval village. He described the late medieval village as a settlement of fishermen, as his survey resulted abundant objects related to fishing. Yet, it seems that the village became deserted at latest by the 1540s; it was first recorded in 1562. In 1580 and 1590, the village land was managed by the inhabitants of the neighbouring Felsőalpár.

5. Szabó, *A magyar nép*, 36, 81, 96, 127-128.

6. Gyárfás, *Oklevéltár*, vol 3, 701-702, Káldy-Nagy, *A budai szandzsák 1546-1590*, 400.

Matkó

1. Located in the territory of today Kecskemét, at Matkó-Templomdomb.

2. *Matkó puszta* (1546, 1559, 1562, 1580, 1590)

3. (no data)

4. Lacking documentary sources not much is known about its history. Most probably deserted before 1500. In 1562 described as being 'in the hands' of Kecskemét citizens.

5. (no data)

6. Káldy Nagy, *A budai szandzsák 1559*, 178; Káldy Nagy, *A budai szandzsák 1546-1590*, 426-427

Mizse

1. Located in today Lajosmizse.
2. sedes Mise (1469), possessio Mise (1521), Kwnmyse village (1552), Myze village (1559), Mizse village (1559), Mise village (1567, 1577)
3. Royal Cumans at Mizse (1521)
4. The early history of the territory is unknown lacking documentary or archaeological data. In 1936, Kálmán Szabó carried out excavation at the late medieval village site of Mizse, and in 1995, András Fülöp had conducted further archaeological survey at the medieval church of Mizse. According to the archaeological data, probably the earliest phase of both the village and the church can be dated to the late Árpadian Period-early fourteenth century, and the church was rebuilt in the fifteenth century. Szabó published typical find material from the fifteenth century cemetery, and some details from the late medieval settlement. It is interesting that neither researchers referred to earlier settlement phase(es), which might mean that this late medieval site had not been habited earlier than the late thirteenth century-early fourteenth century. The name of the settlement is of Cuman origin, and the documentary sources mention exempt Cuman inhabitants, who were subdued to royal authority. In 1521, the boundary between Mizse and Vacs was perambulated. In 1552, the settlement paid the subsidium after 28 portae. In 1559, 36 houses were recorded. The socage-ordinance from 1567 reports that there were 28 colonii (inhabitants holding a whole sessio), 2 inquilini, 2 capitani, 2 deserted houses (domus desertae), and 10 deserted plots (sessiones desertae). In 1567, 24 jobbagiones, 6 inquilini, and 2 noblemen were named. the Ottoman defters also suggest that the site was habited in the sixteenth century. Yet, in 1676, it is deserted, the lands are managed by the Jászberény people.
5. Szabó, A magyar nép, 46, 60, 81, 84, 98, 162; Wicker-Kustár-Horváth, Régészeti kutatások Bács-Kiskun megyében (1990-1995), 86.
6. Gyárfás, Oklevéltár, vol 3, 666; Káldy-Nagy, A budai szandzsák 1559, 180-181; Káldy-Nagy, A budai szandzsák 1546-1590, 433-434; Benedek-Kürti, Bene, Lajos és Mizse oklevelei, 38-42, 54, 66; Szakály, Pest-Pilis-Solt megye, 195.

Monostor

See as case study.

Moricgát

1. Located at Móricgát-Református temető, near the modern village; however there is no continuity between the settlement of the two periods.
2. possessio Morochgata (1411)

3. George and Egedius, sons of John of Gewalja (1411)
4. Based on his excavation results, Kálmán Szabó described as a site deserted during/due to the Tartar Invasion. Most probably deserted before 1500 and merged into the territory of another village before the Ottoman occupation, as it was not mentioned in the defter rolls.
5. Szabó, Az alföldi magyar nép, 22.
6. Bártfai Szabó, Pest megye, 74-75.

Orgovány

1. The late medieval settlement is located at Orgovány-Pusztatemplom, in the territory of the modern Orgovány village.
2. Orgovánzállása/Orgován village (1546, 1559, 1562, 1580, 1590), Orgovány desertum (1676)
3. (no data)
4. In 1559, 5 houses were recorded. According to the defter rolls, the village was habited in the sixteenth century. In 1676, deserted, and described as a ploughland of Kecskemét citizens.
5. Rosta, Újabb eredmények.
6. Káldy-Nagy, A budai szandzsák 1559, 180; Káldy-Nagy, A budai szandzsák 1546-1590, 567-468

Othasylis szállása

1. Maybe connectable with Sasülés located in the territory of today Bugac.
2. Othasylis szállasa (1472]
3. (no data) Cumanis Laurentius and Benedictus filii condam Pauli Thenkes? (1472)
4. King Matthias allowed Lawrence and Benedict, the sons of Paul Thenkes that they populate the possession called Othasylis szállasa in 1472 .
5. (no data)
6. Hornyik, Kecskemét város története, vol 1, 214.

Páhi

1. In the territory of today Páhi; the medieval settleemnt is not identical with the recent village, Páhi -Fácános, Templomhát.
2. Pah (1359, 1427, 1511), Pah puszta (1546, 1559, 1562, 1580, 1590)
3. Paulus de Pah (1359) Thomas de Pah (1427) Lucas de Pah (1511), Nicholas, George and Gaspar Serédi (1528)
4. In 1528, King Ferdinand I donated Nicholas, George and Gaspar Serédi the part possessions of the deceased Andrew Kaly and his wife Justina from Pahi. In 1562, described as being 'in the hands' of Kecskemét citizens. Consquently the village was deserted bewteen 1528-1562. Limited

archaeological information is available about the cemetery of the settlement where Kálmán Szabó excavated several graves.

5. KJMA 68. 181, Szabó, Az alföldi magyar nép, 69-70.

6. Káldy-Nagy, A budai szandzsák 1559, 179; Káldy-Nagy, A budai szandzsák 1546-1590, 472; Gyárfás, Oklevéltár, vol 3, 499; Bártfai-Szabó, Pest megye, 370; Zichy Okmánytár, vol 8, 326; MOL DL 106083

Pálkaszállás

1. In the territory of today Kiskunfélegyháza at Kiskunfélegyháza-Páka, Csenki-tanya.

2. Palkazalasa (1472), Pálka village (1546, 1559, 1552, 1581, 1590), Paka desertum

3. Stephano Marthos de Polka et Thoma Bocha de eadem Comanorum Capitaneis (1488)

4. According to the recent field surveys the settlement was defined as a large village, which had been inhabited from the fourteenth to the late sixteenth century; no Árpadian-Age predecessors were identified. Populous village during the sixteenth century, deserted after 1590. In 1676, the village land was managed by Kecskemét citizens.

5. Rosta, Templomos helyek, 141-143, Rosta, Újabb eredmények, 179.

6. Gyárfás, Oklevéltár, vol 3, 671, 698; Káldy-Nagy, A budai szandzsák 1559, 182-183; Káldy-Nagy, A budai szandzsák 1546-1590, 476; Rosta, Templomos helyek, 141-143.

Szabadbalázs

1. In the territory of today Szabadszállás.

2. Szabadbalázs pusztá (1546, 1559, 1552, 1581, 1590)

3. (no data)

4. (no data)

5. (no data)

6. Káldy-Nagy, A budai szandzsák 1559, 198; Káldy-Nagy, A budai szandzsák 1546-1590, 538-539.

Szabadszállás/ Zombatszállás

1. The site is presumably identical with the present day village.

2. descensus Zombatzallas (1423), descensus Zombathzallas (1444), deserted (before 1559) Szabadszállás village (1559, 1562, 1581, 1590)

3. Paulus dictus Rado et Stephani, Petri et Emerici filiorum suorum Comanorum (1444)

4. In 1423, Zombatzallas was a Cuman dwelling. In 1444 King Wladislaus dispensed the Cuman Paul Rado and his sons from Zombathzallas from paying the ordinary revenues of the royal

Cumans. The documentary sources suggest that it was deserted around 1500, but was repopulated some fifty years later, as it is recorded in the Ottoman tax roll as inhabited village.

5. Rosta, Újabb eredmények.

6. Hornyik, Kecskemét története, vol 1, 201-206; Gyárfás, Oklevéltár, vol. 3, 615, Káldy-Nagy, A budai szandzsák 1559, 181; Káldy-Nagy, A budai szandzsák 1546-1590, 439-540.

Szentkirály

See as case study.

Szentkozma

1. Presumably identical with Kozma Homokya represented in the territory of Orgovány, south of the village in 1793. Probably identical with the archaeological site Orgovány-Kápolna.

2. Szentkozma puszta (1559, 1562, 1580, 1590)

3. (no data)

4. Limited information is available about its history; presumably was a Cuman dwelling, deserted before 1500 and merged into the territory of Orgoványszállása.

5. Rosta, Újabb eredmények.

6. Káldy-Nagy, A budai szandzsák 1546-1590, 572.

Szentlőrinc

1. Today Nyárlőrinc. The medieval village site is partly covered by the recent village.

2. villa Zenthlewryncz (1354), possessio Zentleurinth (1392), Szentlőrinc village (1546, 1559, 1562, 1580, 1590)

3. Petri, Iacobi et Iohannis, filiorum Iohannis, filii Pauli de Suran, ac Georgii, filii Thome de Geech (1392), Petro, Nicolao et Gregorio de Zenthlewryntz nobilibus (1488)

4. The early history of the village site has not been clarified yet. The archaeological surveys so far could not prove or disprove earlier settlement phases than the late thirteenth-early fourteenth century. The excavations proved that the church was surely built by the turn of the thirteenth-fourteenth century at that site, and this was re-built and enlarged around the turn of the fifteenth century. Additionally, a rectangular vestry was attached to the northern wall of the church in the late fifteenth or early sixteenth century. One part of the cemetery was also researched. the dating of the graves suggest that the graveyard was used from the early fourteenth (earliest coins King Charles I) to the sixteenth century. The publication on the grave-finds put a special emphasis on the interpretation of the Cuman-type artefacts found in graves, as documentary sources do not mention Cuman landowners or inhabitants in the context of the late medieval village. The defter rolls

provide data that the settlement was populated throughout the sixteenth century. By the 1670s the settlement deserted and was managed by Kecskemét.

5. György V. Székely, “Középkori templom és temető feltárása Nyárlőrincen” [The excavation of the medieval church and cemetery at Nyárlőrinc] *Múzeumi Kutatások Bács-Kiskun Megyében* (1986): 81-85; György V. Székely, “Kun eredetű tárgyak és kulturális elemek Nyárlőrinc középkori temetőjében” [Cuman artefacts and cultural elements in the medieval cemetery of Nyárlőrinc] in: *A Jászkunság kutatása 2000*, edited by Erzsébet Bánkiné Molnár, (Jászberény-Kiskunfélegyháza: Jász Múzeumért Alapítvány, 2002), 35-47.

6. Gyárfás, Oklevéltár, vol 3. 491; Georgius Fejér, *Codex diplomaticus Hungariae ecclesiasticus ac civilis*. Tomi X. Vol. 2. (Budae, 1834.), 66-67; Gyárfás, Oklevéltár, vol 3, 701-702; Káldy-Nagy, A budai szandzsák 1559, 184-185; Káldy-Nagy, A budai szandzsák 1546-1590, 576-577.

Zomokszállás

1. Located in the territory of today Kiskunfélegyháza, at Felsőgalambos-Templompart.
2. Zomokzallasa (1493), Zomok puszta (1559, 1580, 1590)
3. Gallo Kamaras de Zomokszallasa (1493)
4. The limited information about this site suggests that it has been deserted before the Ottoman occupation. In 1580 and 1590, Zomok was recorded together with Monostor.
5. Review: Rosta, *Középkori templomok*, 139-140.
6. Káldy-Nagy, A budai szandzsák 1546-1590, 711, Gyárfás, Oklevéltár, vol 3, 709.

APPENDIX II.

Historical maps available on CD-ROM

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FIGURES

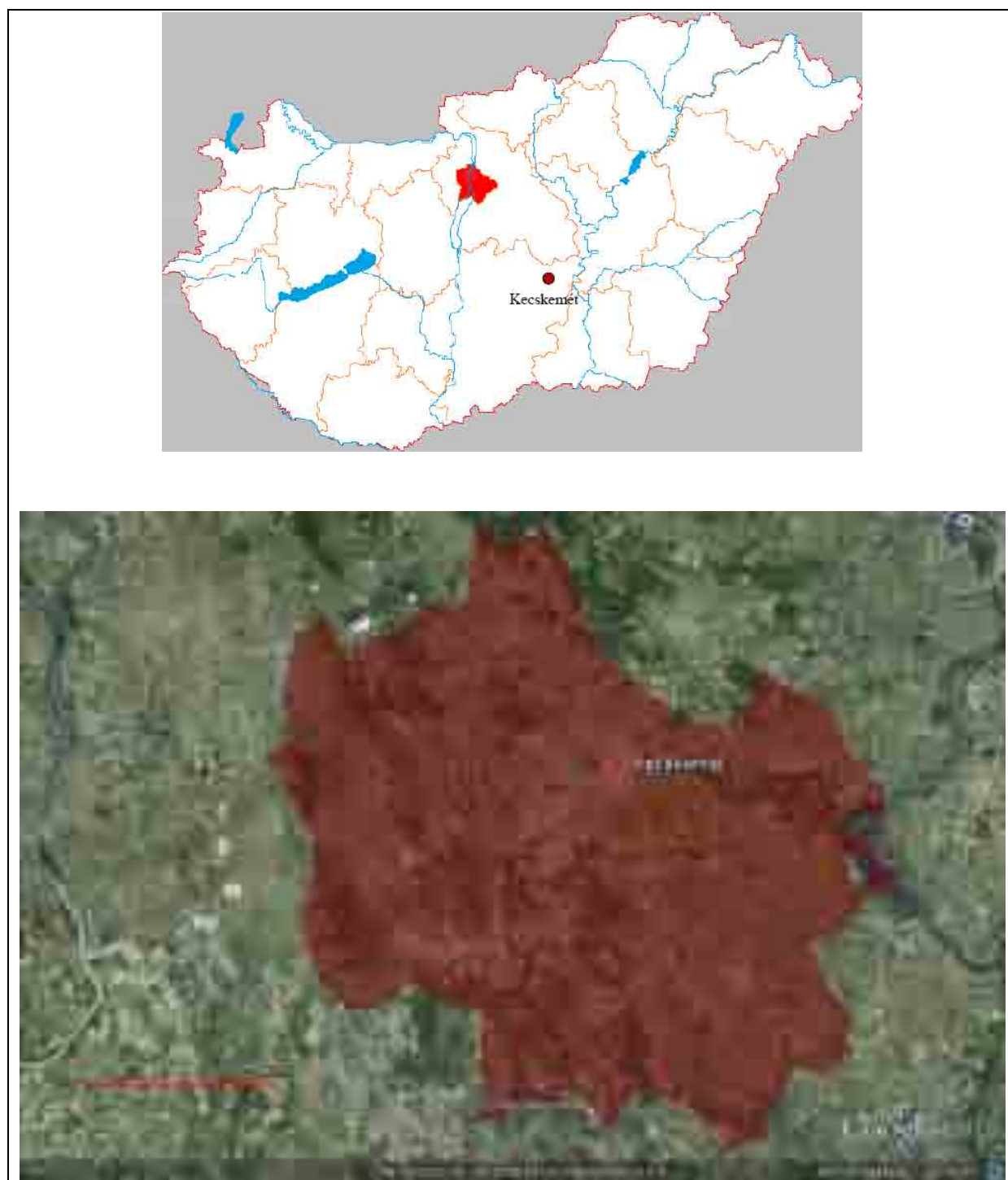


Fig 1 The study area around Kecskemét.



Fig 2 The study area as depicted on the earliest map of Hungary dating from 1528. (*Tabula Hungariae ab quatuor latera per Lazarum quondam Thomae Strigoniensis Cardinalis secretarii...* Budapest, Országos Széchényi Könyvtár [National Hungarian Library], Apponyi Collection M 136.).



Fig 3 Aerial photo of the medieval village site at Alsómonostor taken for military purposes in the 1950s. (Map Collection, Institute for Military History, Budapest).



Fig 4 Aerial photo of the medieval village site at Bugac taken for military purposes in the 1950s. (Map Collection, Institute for Military History, Budapest).



Fig 5 Aerial photo taken by Otto Braasch at the medieval village site Bugac (1997-2002). Aerial Archaeological Archive of Pécs.



Fig 6 Aerial photo taken by Otto Braasch at the medieval village site Bugac (1997-2002). Aerial Archaeological Archive of Pécs.



Fig 7 Aerial photo taken by Otto Braasch at the medieval village site at Alsómonostor (1997-2002). Aerial Archaeological Archive of Pécs.



Fig 8 Aerial photo taken by Otto Braasch at the medieval village site at Felsőmonostor (1997-2002). Aerial Archaeological Archive of Pécs.



Fig 9 Aerial photo taken by Zsuzsa Miklós at the medieval village site Felsőmonostor, 2004.



Fig 10 Aerial photo taken by Zsuzsa Miklós at the medieval village site Szentkirály, 2004.



Fig 11 Intensively cultivated open fields and isolated farmsteads near Kecskemét (Google Earth, 2012).



Fig 12 Intensively cultivated open fields and dispersed isolated farmsteads near Kecskemét (Google Earth, 2012).



Fig 13 The “Puszta” at Bugac (photo taken by the author, 2008).



Fig 14 The “puszta” landscape at Orgovány (accessed from: http://puszta.com/hun/hungary/cikk/pimpo_tanosveny_orgovany).

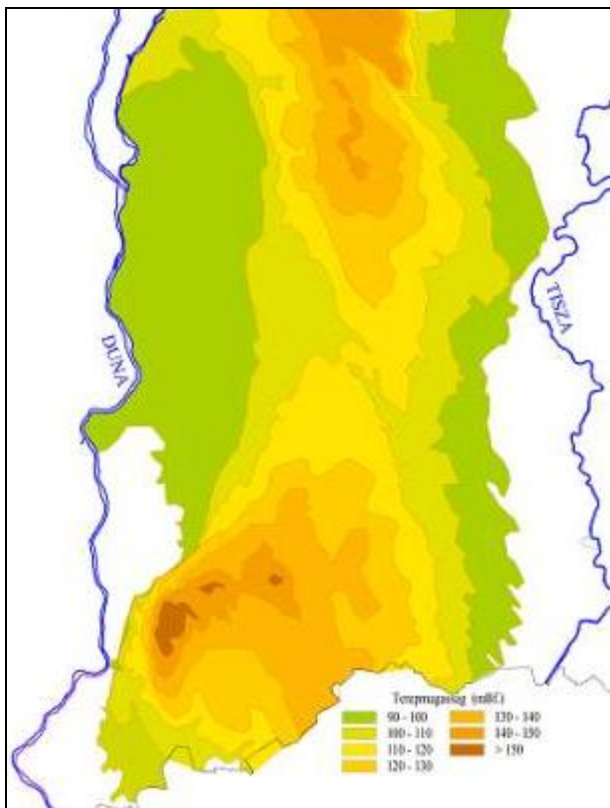


Fig 15 The elevation map of the area between the Danube and Tisza Rivers (accessed from: http://www.hidrologia.hu/vandorgyules/27/dolgozatok/02gyiran_istvan.htm).



Fig 16 The “Kenyérváróhalom” at Szentkirály.

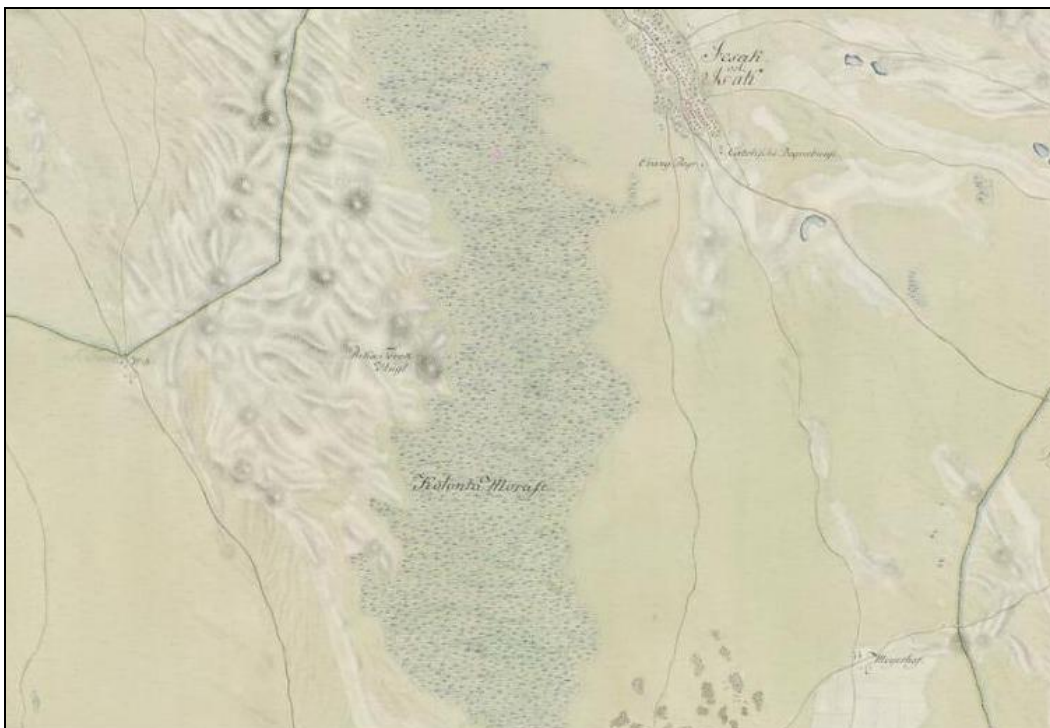


Fig 17 Lake kolon on the First Ordnance Survey (1782-1784).



Fig 18 Lake Kolon at Izsák today (photo accessed from: <http://itthon.hu/kolon-to>).



Fig 19 The Vörös mocsár (“Red Marsh”) at Császártöltés (photo accessed from: http://knp.nemzetipark.gov.hu/index.php?pg=menu_1527).



Fig 20 Wind blown sand at Bugac (photo accessed at: <http://itthon.hu/nemzeti-parkok/kiskunsagi-nemzeti-park/kiskunsagi-nemzeti-park>).



Fig 21 Wind-blown sand dune at Bugac (photo accessed at: <http://itthon.hu/nemzeti-parkok/kiskunsagi-nemzeti-park/kiskunsagi-nemzeti-park>).



Fig 22 The colonization of sand –dunes. (photo accessed from: http://forestpress.hu/jie_hu/images/stories/fafajok/boroka03.jpg).

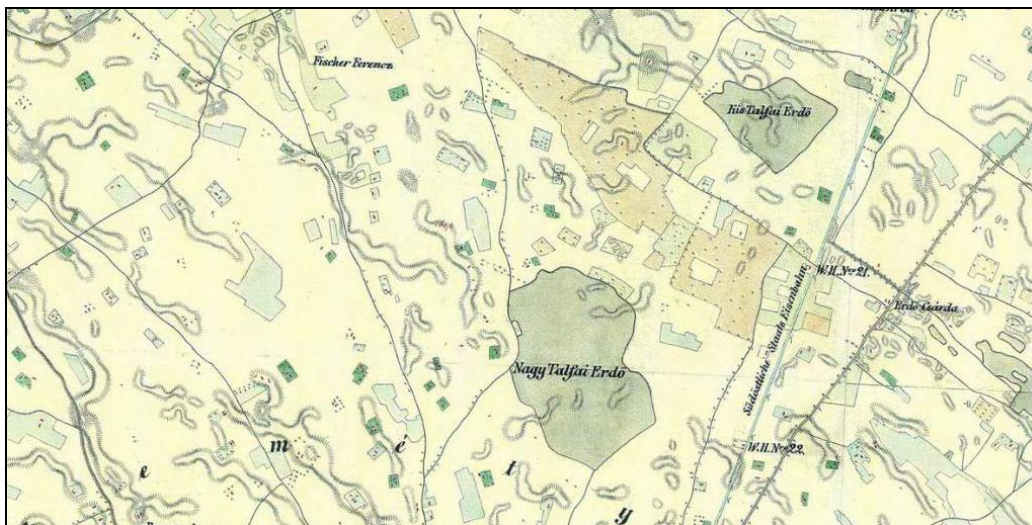


Fig 23 The "Nagy-Talfája" and "Kis-Talfája" Woods near Kecskemét as represented on the Second Ordnance Survey (1809-1869).



Fig 24 The remains of the forest steppe at Nagykőrös (http://www.wwf.hu/d_img/2007-05-25-IMG_7140.JPG).



Fig 25 Planted woodland near Bugac (photo by the author).



Fig 26 Extended planted woodlands on aerial photos north of Bugac (Google Earth, 2012).

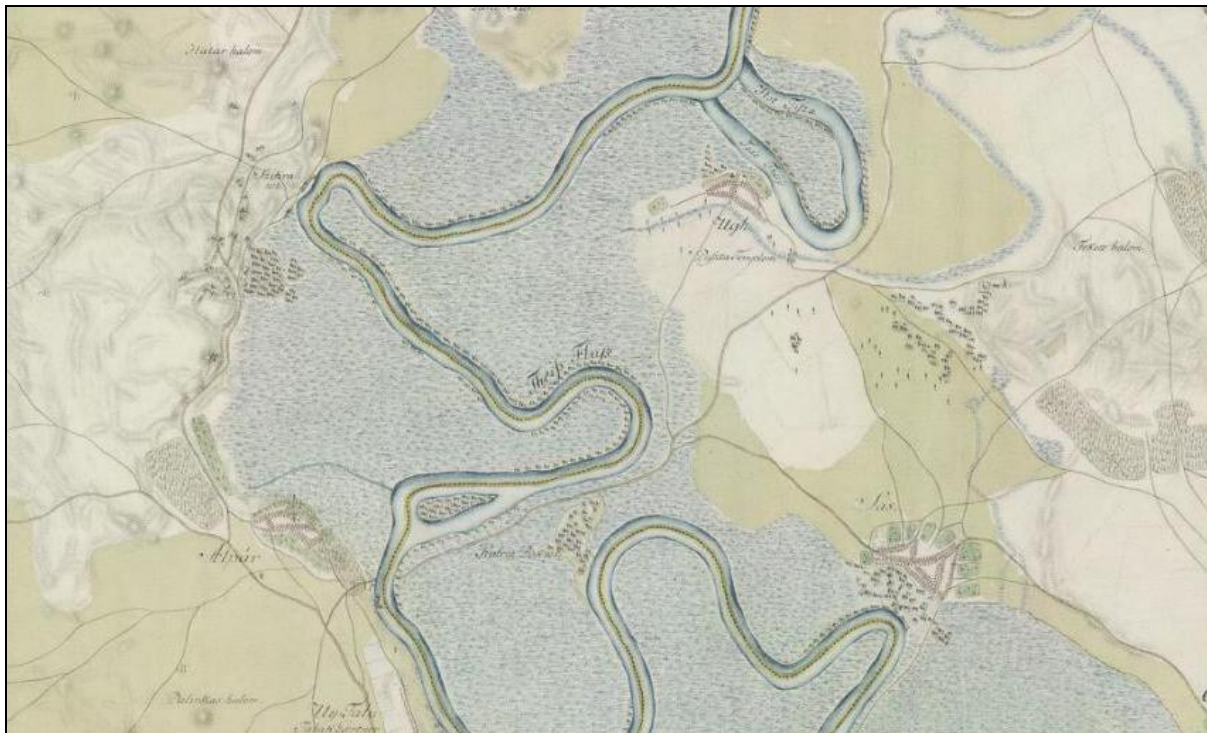


Fig 27 The Tisza River at Alpár as represente on the First Ordnance Survey (1782-1784).

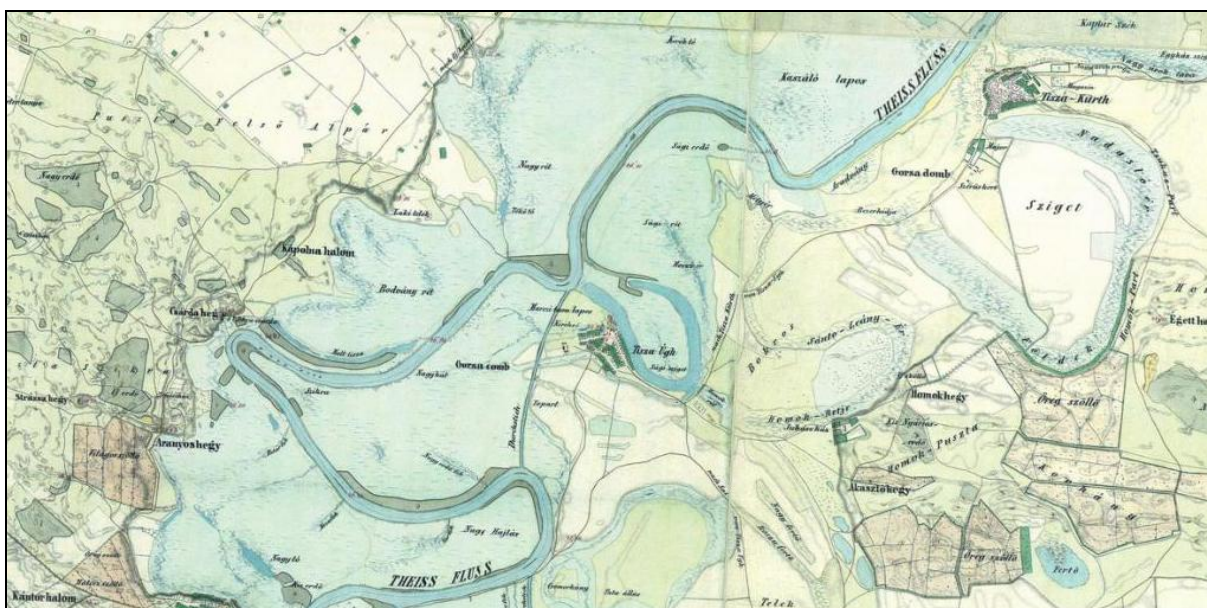


Fig 28 The Tisza River at Alpár as represente on the Second Ordnance Survey (1806-1869).

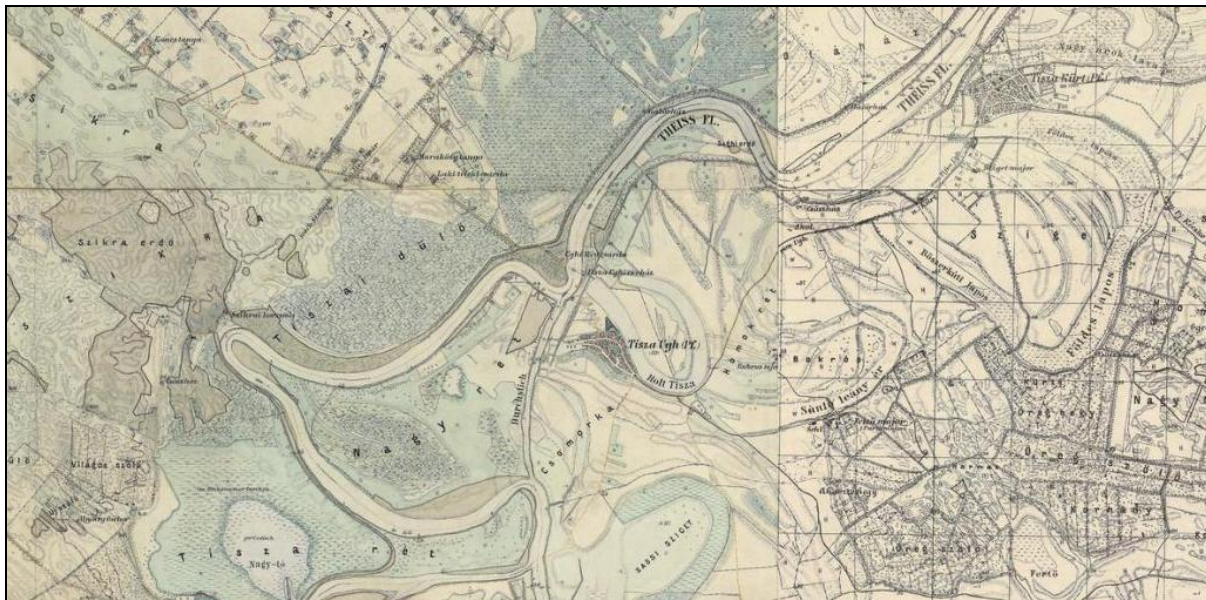


Fig 29 The Tisza River at Alpár as represented on the Third Ordnance Survey (1872-1884).

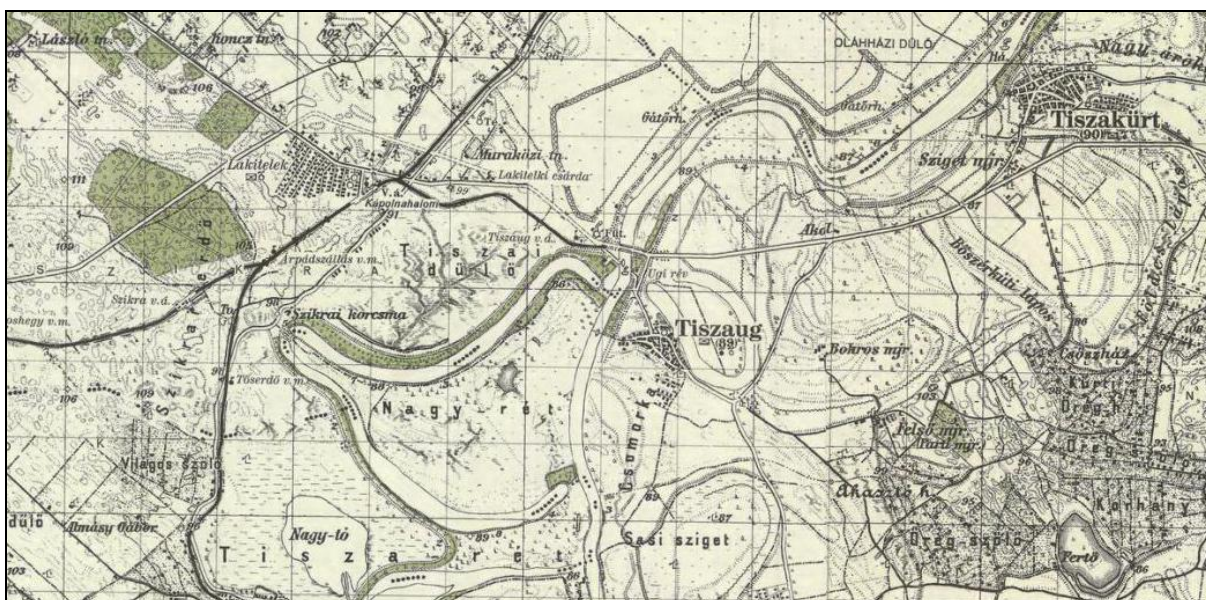


Fig 30 The Tisza River at Alpár as represented on the Cadastral Survey Map in 1952.



Fig 31 The Tisza at Alpár today (Google Earth, 2012).

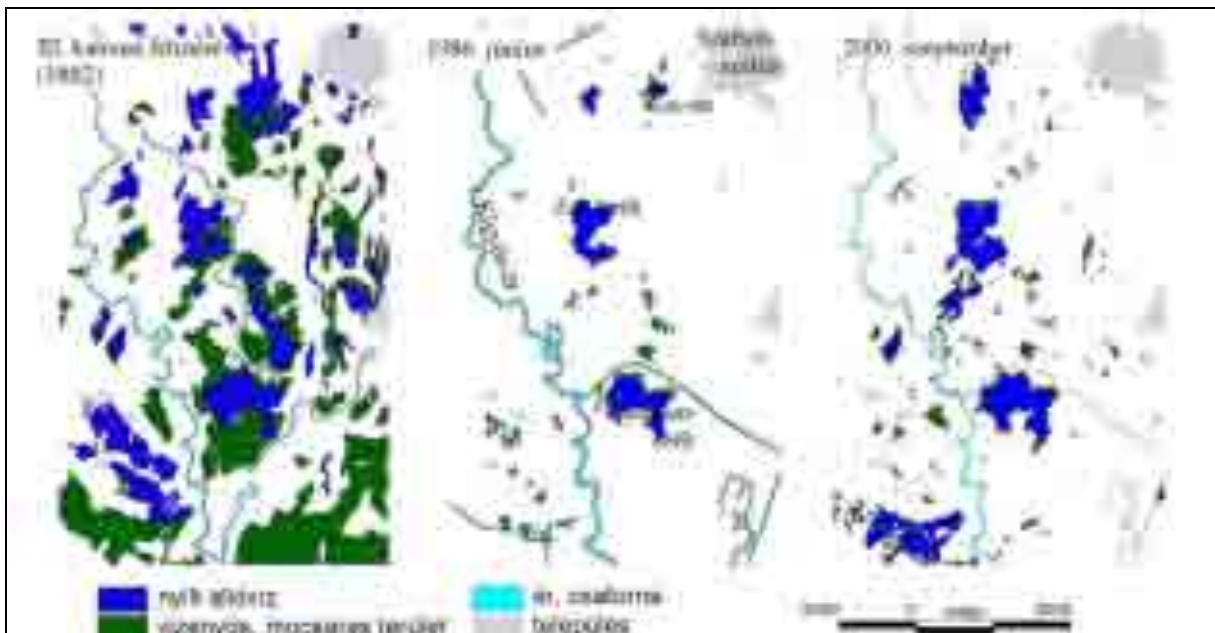


Fig 32 Dehydration in the Danube-Interfluve Region at the Kígyósér, near Szabadszállás (after Rakonczi-Kovács, *A szárazodási folyamat értékelése*; accessed from: <<http://www.geo.u-szeged.hu/web/klimavaltozas-foeldrajzi-hatasai-tajvaltozasok-ertekelese>>).



Fig 33 Dried up sodic lakes at Alsómonostor (Aerial photo by Otto Braasch, Aerial Archaeological Archive, Pécs, 1997-2002).

A KISKUNSÁGI HOMOKVIDÉK TÁJÖKOLÓGIAI TÉRKÉPE

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Készült: MTA ÖBKI,
Vácrátót, 2008.
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Jelmagyarázat

- szántó
- szőlő
- gyümölcsös
- egyéb agrárterület
- kevert kistáblás mozaik
- ruderalis bolygatott növényzet
- belváros
- falu, kertváros
- egyéb településkörnyék
- vízfelület
- nádas, mocsár
- láp, turjános rét, nádas
- rét
- felülvetett gyepek
- zárt buckaközi gyepek
- szikes felszín
- másodlagos gyepek, parlag
- másodlagos nyílt homoki gyepek, parlag
- nyílt homoki gyepek
- nyáras borókás
- nyárligetes homokbuckás
- természetes száraz cserjések
- nyílt vagy zárt nyáras vagy tölgyes erdő
- pusztai tölgyes
- zárt gyöngyvirágos tölgyes
- tölgy telepítés
- zárt nyáras erdő
- hazai nyár telepítés
- facsoportok, fasorok
- vizes erdő vagy cserjések
- fenyőültetvény
- elegyes ültetvény
- lombos erdő ültetvény
- vágásterület, fiatalos



Készült a következő térképek felhasználásával:
- A Duna-Tisza köze aktuális élőhelytérképe
MTA ÖBKI - Kiskunsági Nemzeti Park
(D-T Map program, 2000)
- CORINE 1:50 000 Felszínborítási térkép, FÖMI

Fig 34 The present-day landscape-ecological map of the Kiskunság Sand Region
(Legend: grey: agricultural areas; red: built-in areas; blue: water covered areas; green: grassland; greenish-yellow: steppe meadows; light brown: open forest; dark brown: closed forest ; lilac: planted forests).

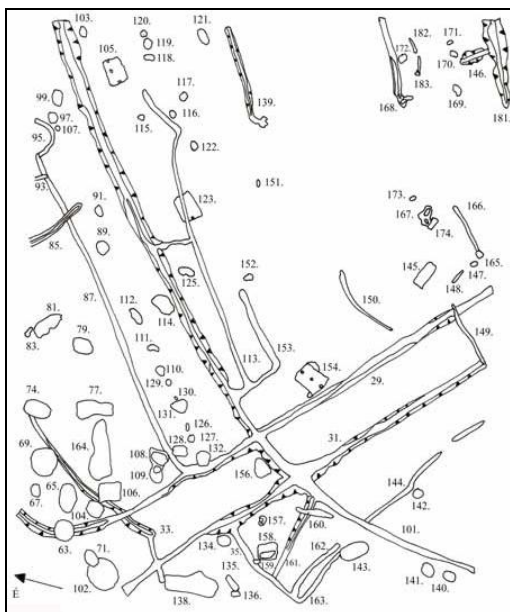


Fig 35 Detail from an Árpadian Age village (after: Bencze-Gyulai-Sabján-Takács, *Egy Árpád-kori veremház*).

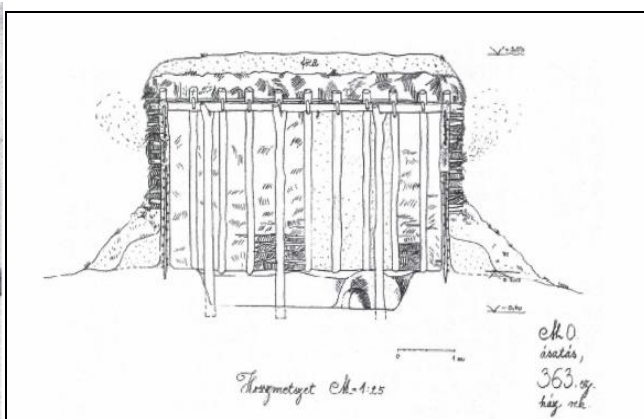


Fig 36 The Árpadian Age house (top left: excavated house; top right: the reconstructed section of the house; bottom left: re-built Árpadian Age house; after: Bencze-Gyulai-Sabján-Takács, *Egy Árpád-kori veremház*).



Fig 37 Escape from the Mongols' invasion as depicted by Johannes Thuroczy in the *Chronica Hungarorum* (1488) (the online version of the chronicle is available at <http://thuroczykronika.atw.hu/>).



Fig 38 The perambulation map of Cegléd in 1368 (after Dániel Ferenc Szántó, *A térkép szerepe a régészetben az M0-ás útgépjárú megelőző régészeti feltárásának példáján keresztül* [The role of mapping in archaeology, as exemplified by the preliminary archaeological survey at the M0 motorway], MA Dissertation, Manuscript, Budapest: ELTE, Department of Cartography and Geoinformatics, 2003 (as accessed from <http://lazarus.elte.hu/hun/digkonyv/szakdolgozat/szantho/sz.htm> on 15 May 2010>).



Fig 39 Identified medieval churches around Cegléd and Nagykőrös (after: Tari, *Pest megye középkori templomai*).



Fig 40 The settlement areas of the Cumans in the Great Plain of Hungary (after Pálóczi-Horváth, *Pechenegs, Cumans, Iassians*).

24

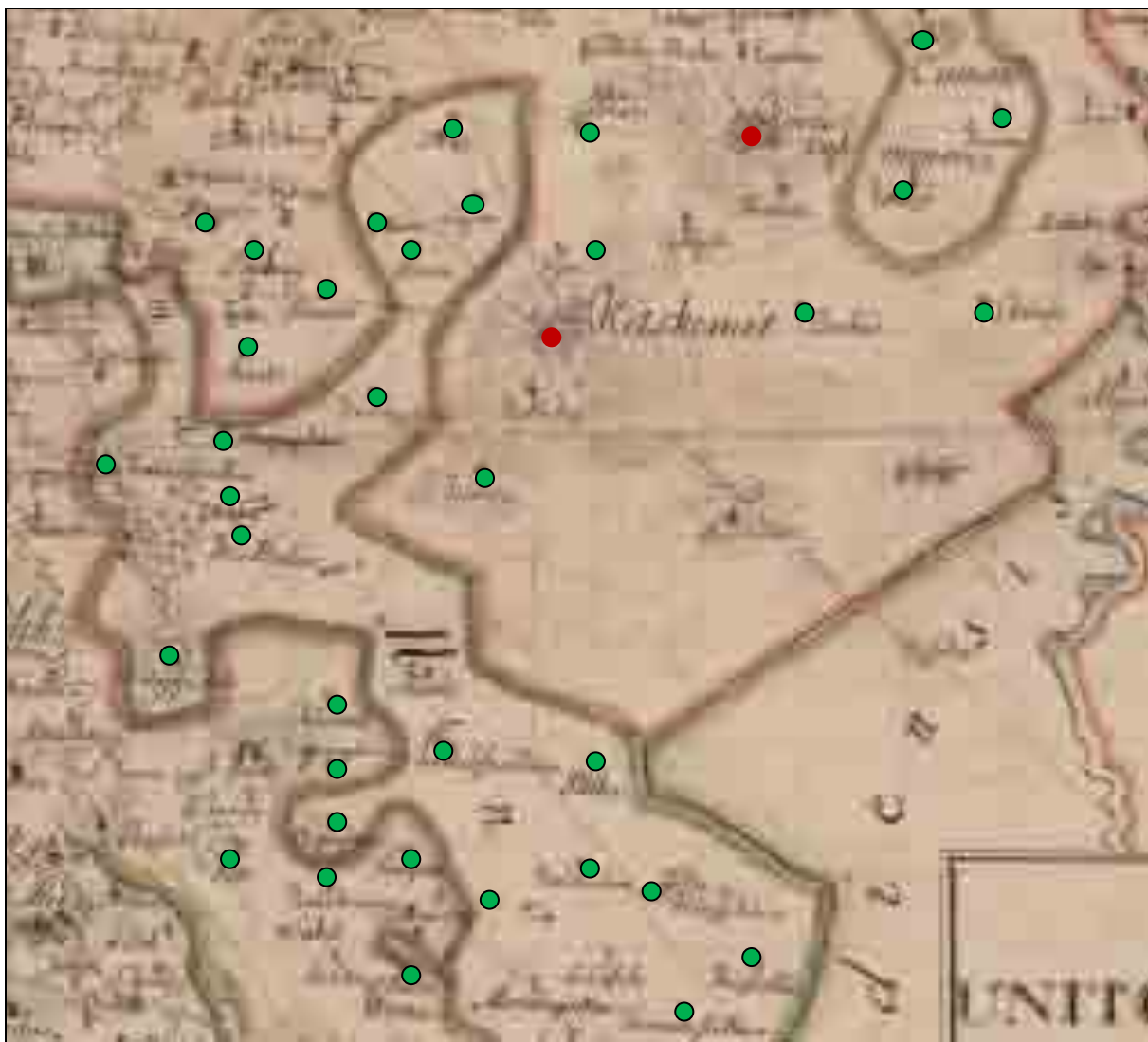


Fig 42 Deserted Cuman villages as represented on the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

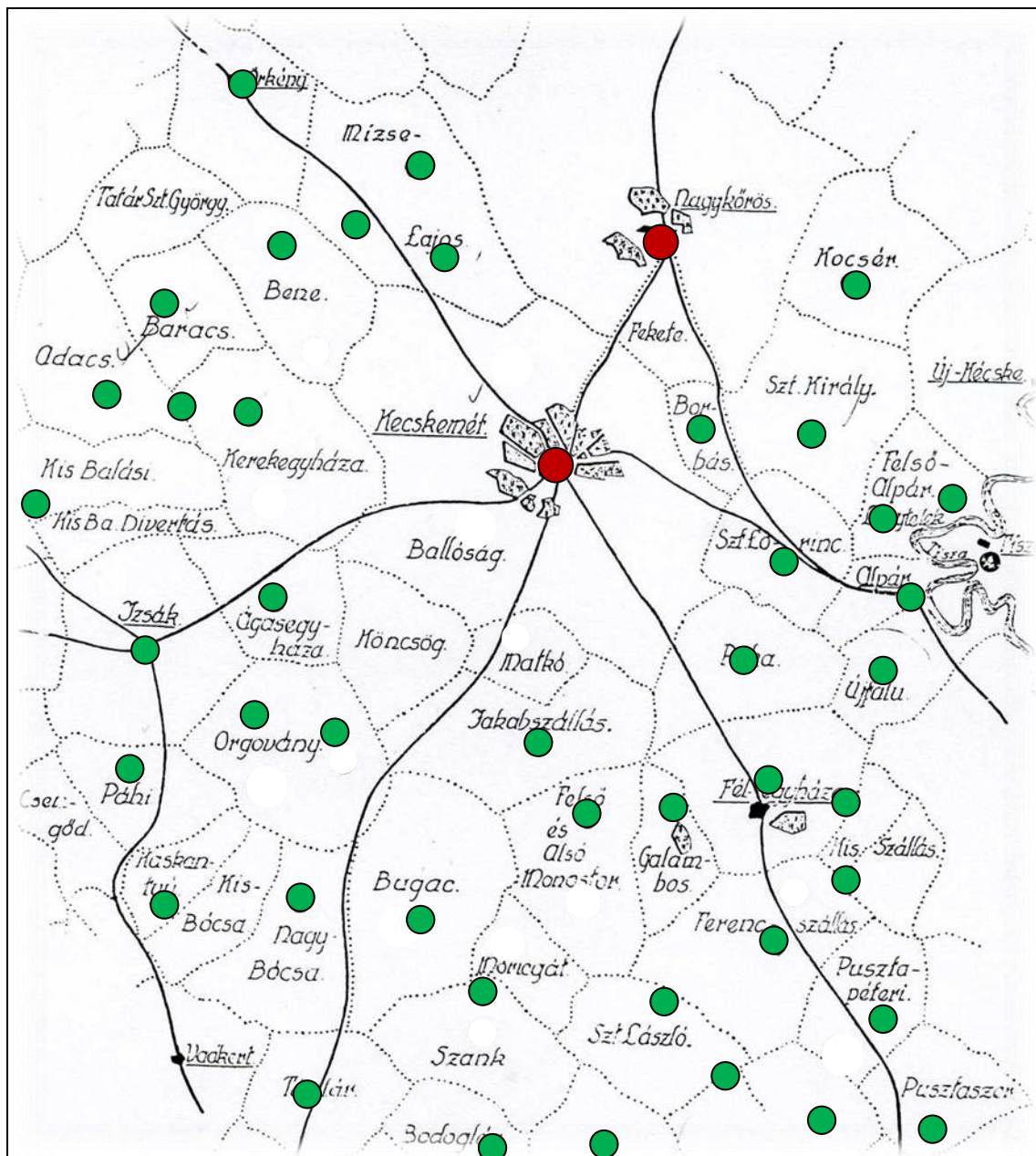


Fig 43 Villages around Kecskemét cca 1450 (drawn by the author, based on the data from Szabó, *A magyar nép*, Rosta, *Újabb eredmények*).

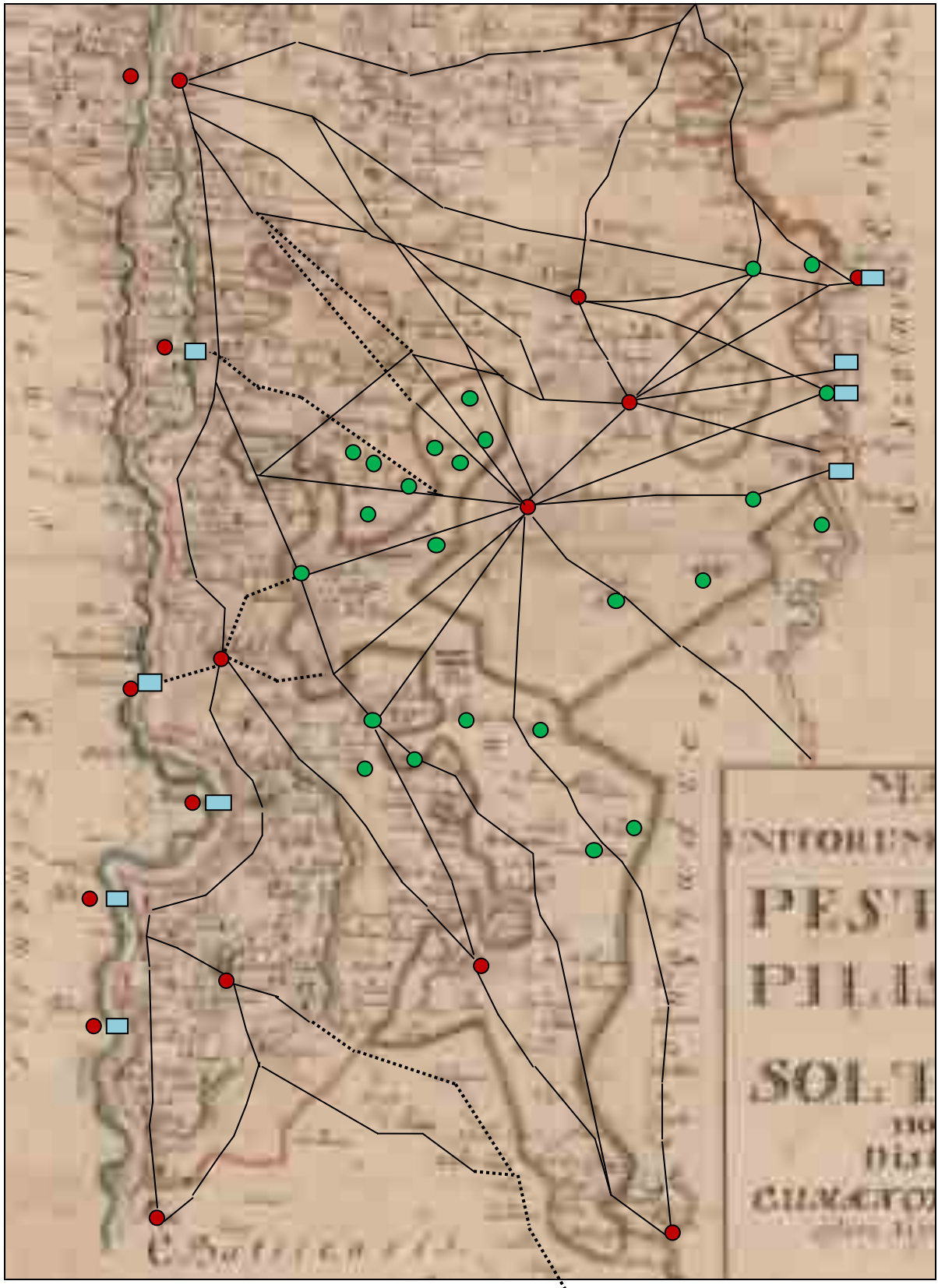


Fig 44 Deserted villages (green) and urban settlements (red), with the main traffic roads and ferry points/custom stations delineated around Kecske-mét on *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086). The drawn

black lines indicate those traffic routes that were depicted on the county map in 1740; the intermittent lines show hypothesized/reconstructed routes).

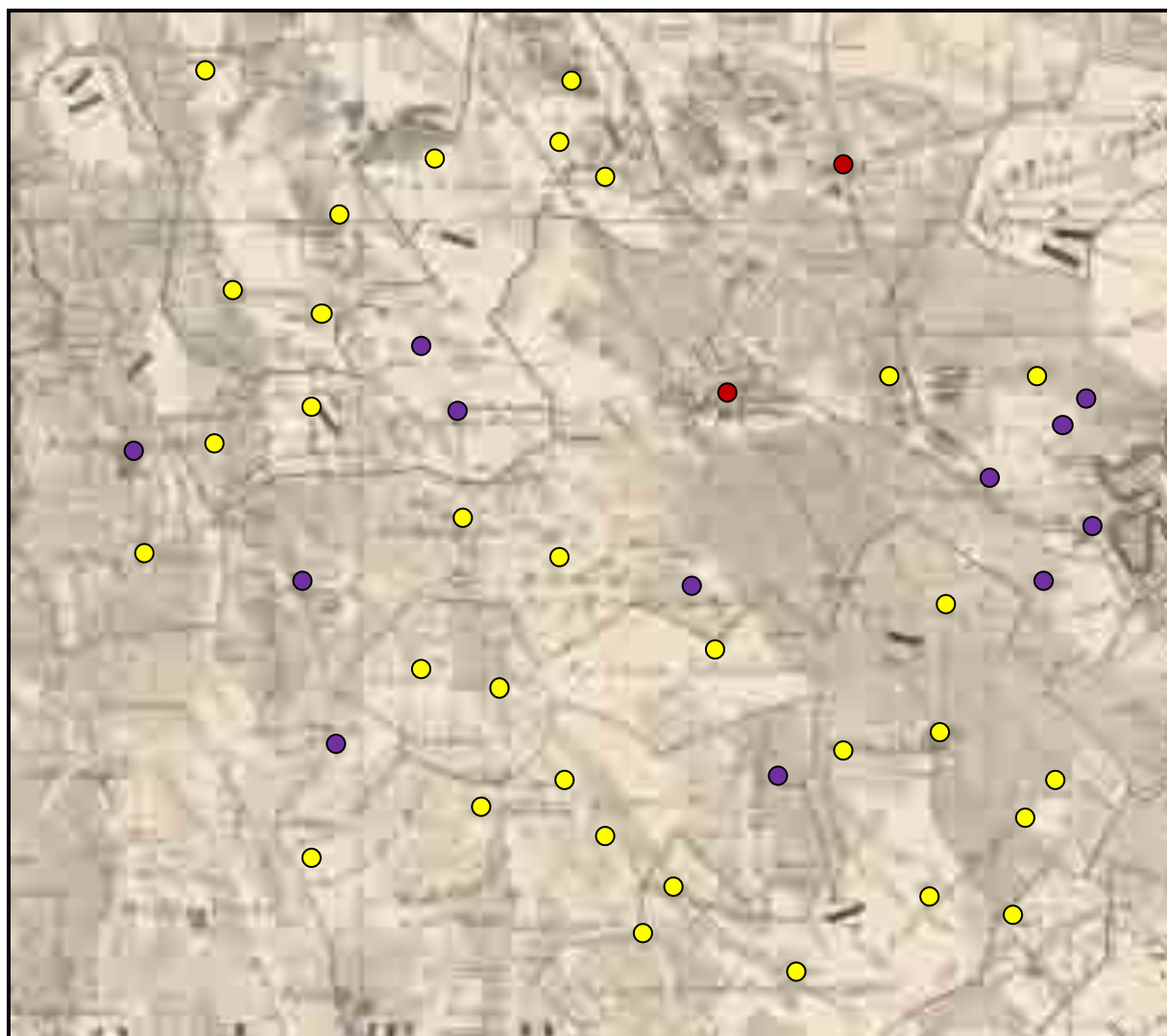


Fig 45 Late medieval villages around Kecskemét cca. 1450 (blue: Hungarian owner; yellow: Cuman owner, red: market town), shown on the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2).

29

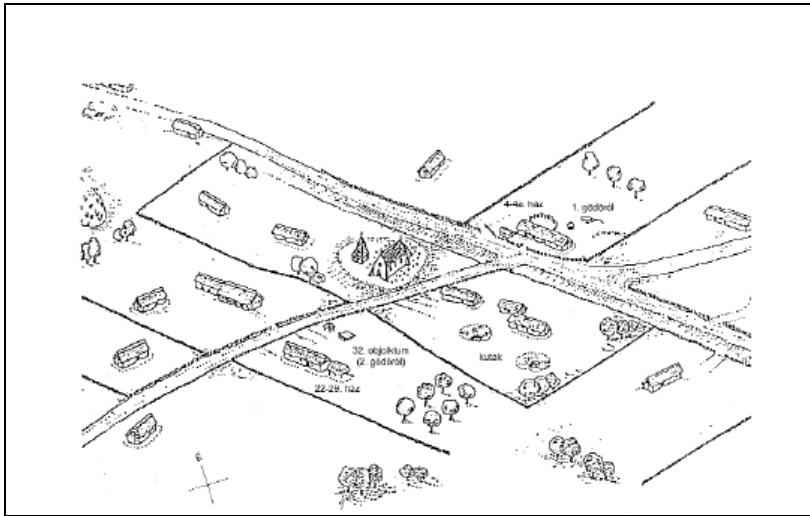


Fig 47 The reconstructed ground-plan of Szentkirály (after Pálóczi-Horváth, *Élet a középkori Szentkirályon*).

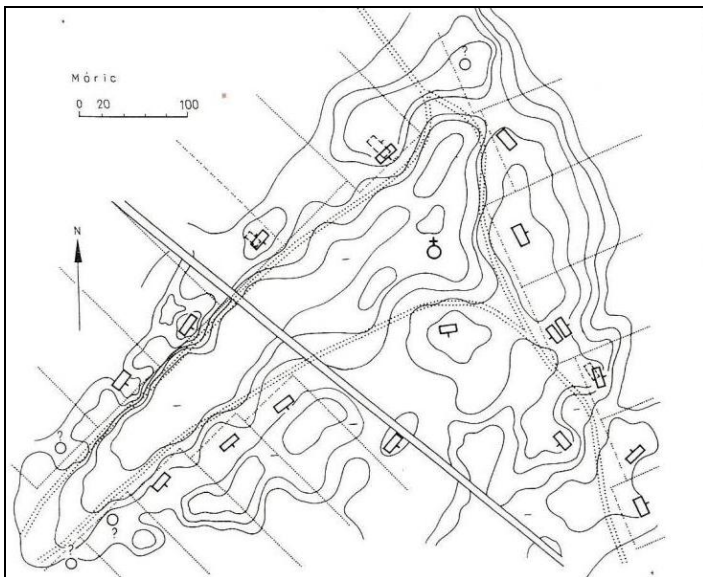


Fig 48 The ground-plan of the medieval Móric village (after Holl, *Mittelalterlichen Dorfgrundrisse*).

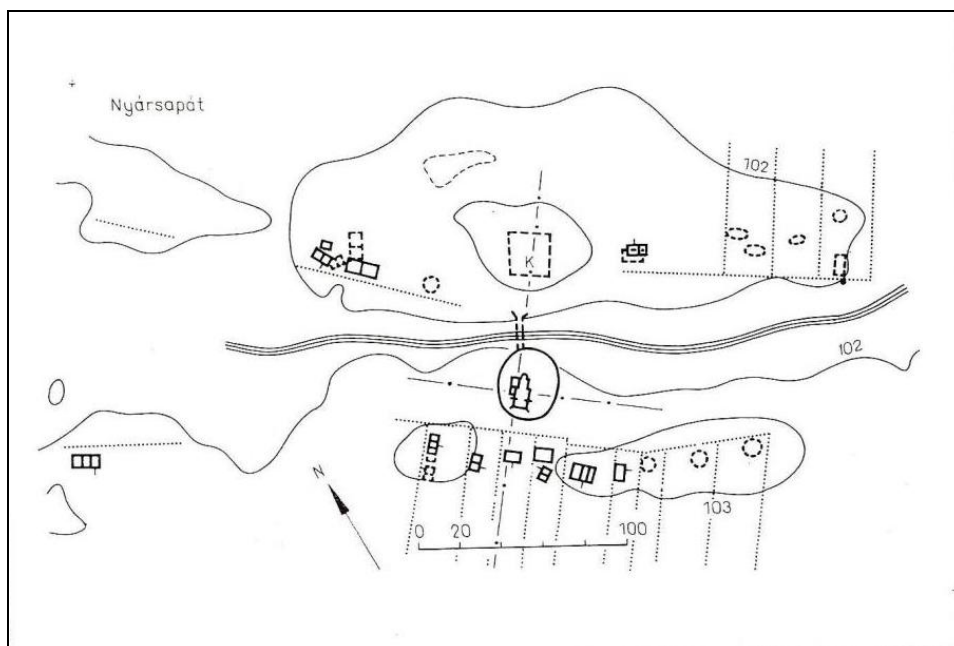


Fig 49 The ground-plan of the medieval Nyársapát village (after Holl, *Mittelalterliche Dorfgrundrisse in Ungarn*).

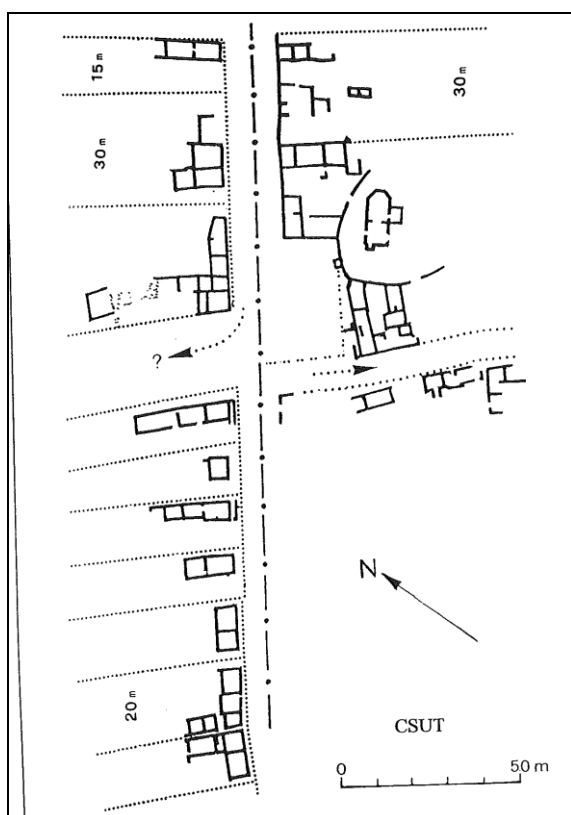


Fig 50 The ground-plan of Csöt village (after Holl, *Mittelalterliche Dorfgrundrisse in Ungarn*).

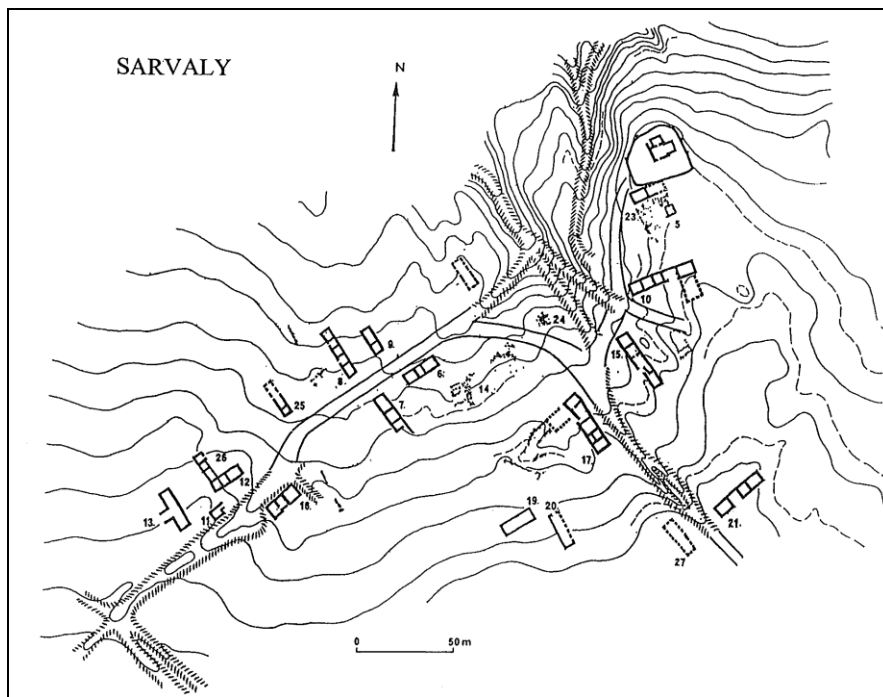


Fig 51 The ground plan of Sarvaly (after Holl, *Das mittelalterliche Dorf Sarvaly*).

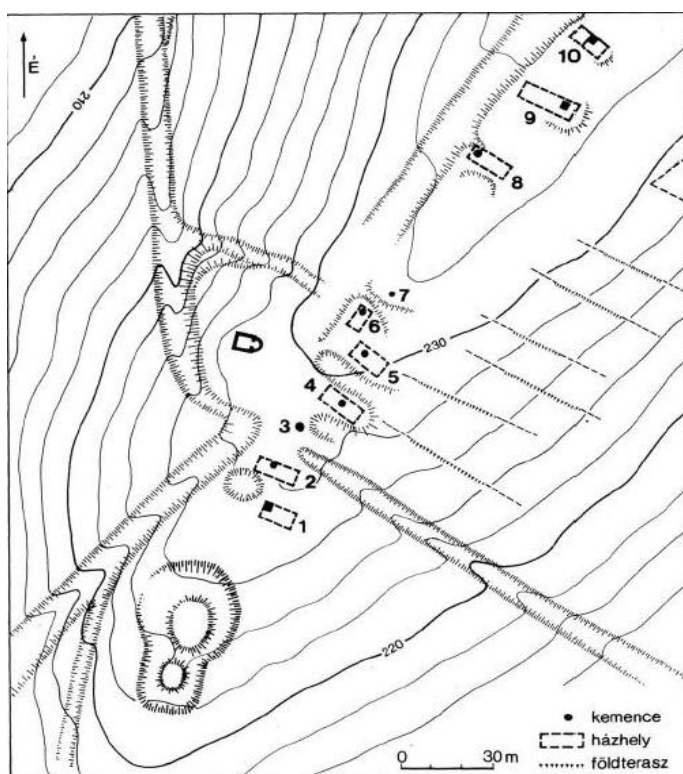


Fig 52 The ground-plan of Szentmihály (after Holl, *A középkori Szentmihály falu ásatása II*).



Fig 53 The row of plots along the street of the medieval Ete (after Miklós-Vizi, *Angaben zur Siedlungsgeschichte des mittelalterlichen Marktfleckens Ete*).



Fig 54 The doubled infields of Hajdúböszörmény as represented on the First Ordnance Survey (1782).



Fig 55 The doubled infields of Szabadszállás on the First Ordnance Survey (1780-1784).

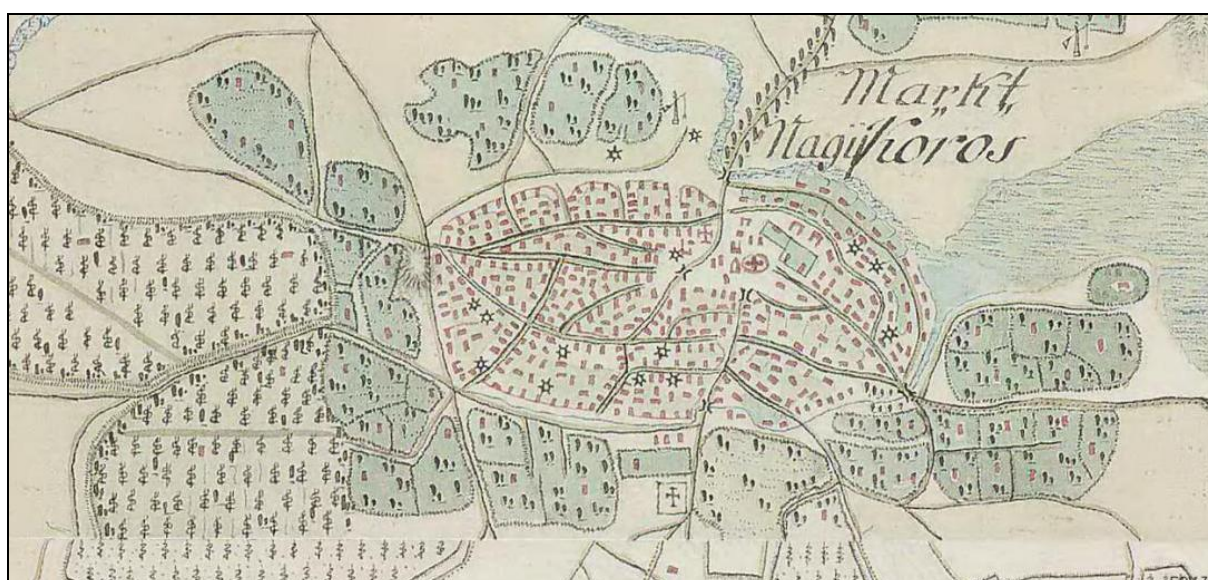


Fig 56 The belt of gardens around Nagykőrös on the First Ordnance Survey (1780-1784).

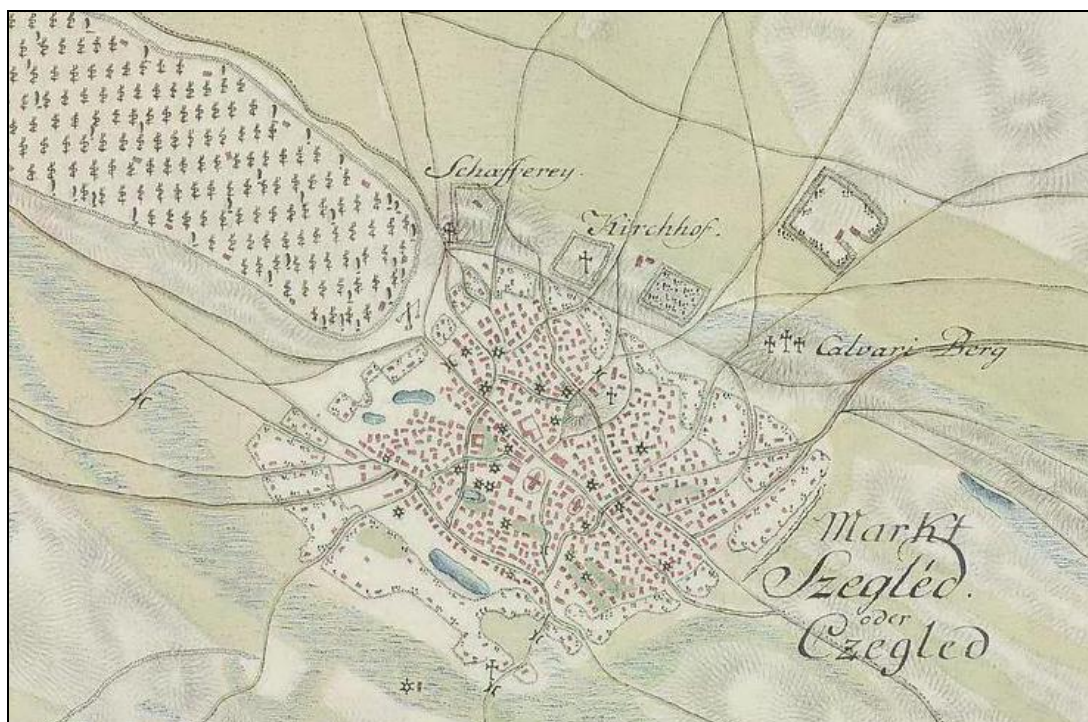


Fig 57 The belt of gardens around Cegléd on the First Ordnance Survey (1780-1784).



Fig 58 Treading of corn (Átány, Heves County, 1930s) (photo accessed from: <http://mek.oszk.hu/02700/02790/html/img/103.jpg>).



Fig 59 Treashing out of corn (Óbánya, Baranya County, 1930s) (photo accessed from: < <http://mek.oszk.hu/02700/02790/html/img/105.jpg>>).

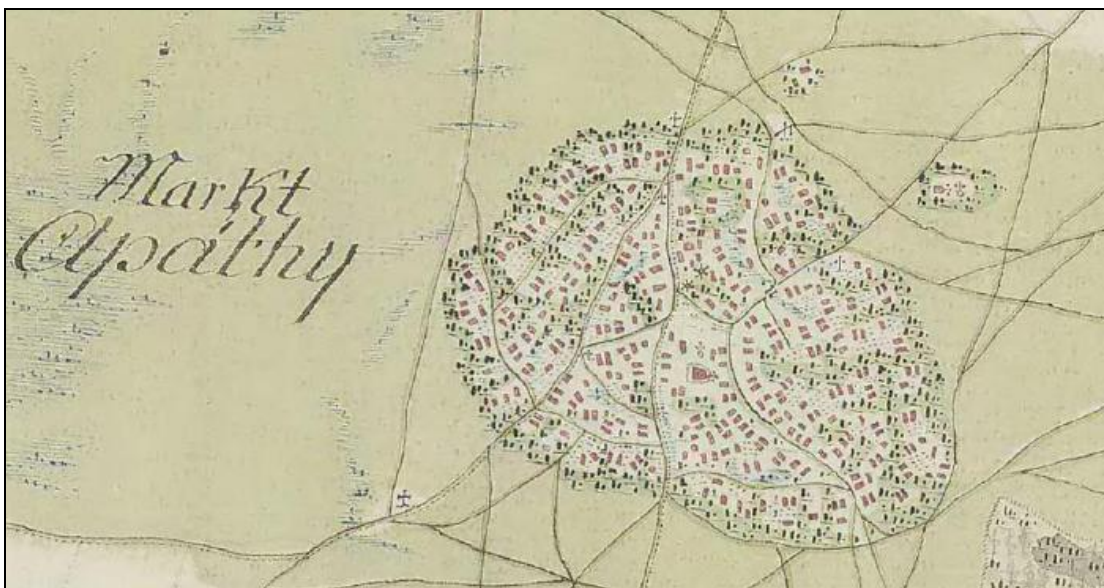


Fig 60 Jászapáti as delineated on the First Ordnance Survey (1780-1784).

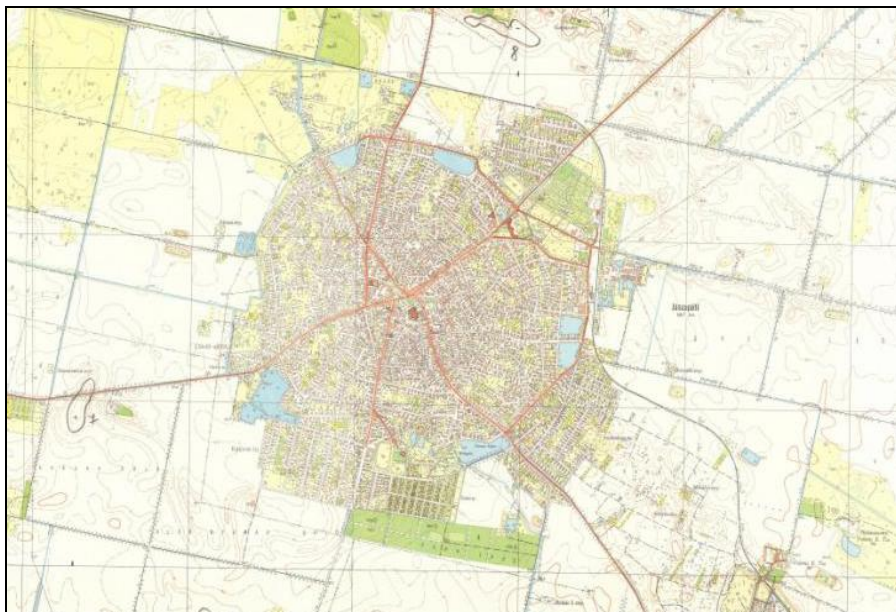


Fig 61 Jászapáti on the modern 1:10.000 Cadastral map (2004).

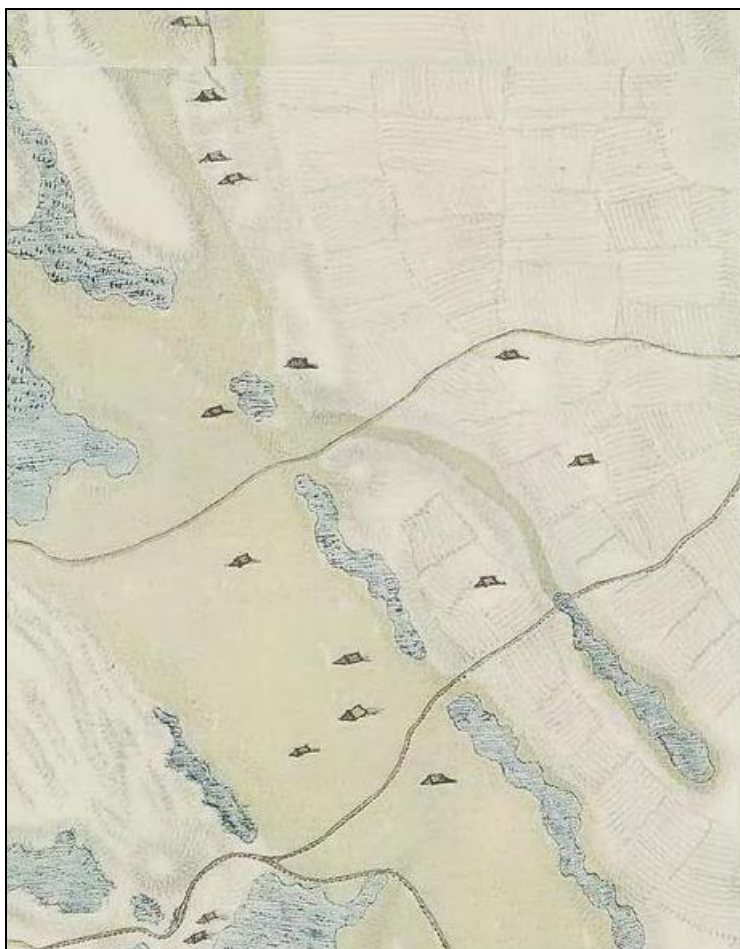


Fig 62 Early isolated farmsteads on the First Ordnance Survey (1780-1784) at Kerekegyház.



Fig 63 Early isolated farmsteads on the First Ordnance Survey (1780-1784) at Kisbalázs.



Fig 64 The dense network of isolated farmsteads in the close neighbourhood of Kecskemét on the First Ordnance Survey (1780-1784).

The map is a hand-drawn sketch of the battle site. At the top, a vertical line represents the River Sever. Below it, a horizontal line marks the town of Tewkesbury. The map shows the positions of the armies of King Richard III and the Lancastrians, with various symbols and numbers indicating troop movements and positions. A scale bar is located at the bottom right, and a north arrow is at the top right.

39



Fig 67 Possible site of an early modern isolated farmstead from the air at Bugac (aerial photo by Zsuzsa Miklós).



Fig 68 Possible site of an early modern isolated farmstead from the air at Bugac (aerial photo by Otto Brasch, 1997-2002; Aerial archaeological Archive, Pécs).



Fig 69 Possible site of early modern isolated farmsteads from the air at Bugac (aerial photo by Otto Brasch, 1997-2002; Aerial archaeological Archive, Pécs).



Fig 70 Streetscape from Adorján (Bács-Kiskun county), 1960s (photo accessed from: <<http://mek.oszk.hu/02100/02115/html/5-1019.html>>).



Fig 71 The ground-plan of an excavated peasant plot at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*).

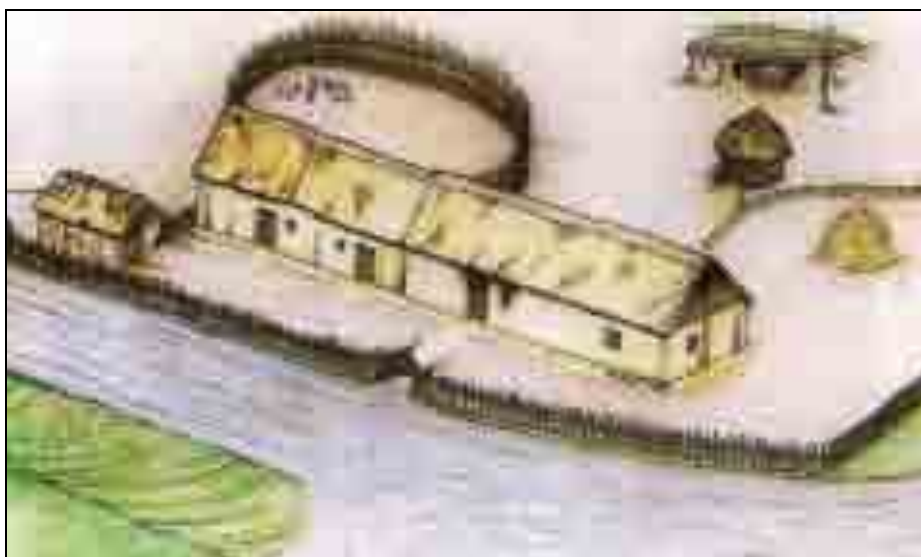


Fig 72 Reconstructed toft at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*, 54).

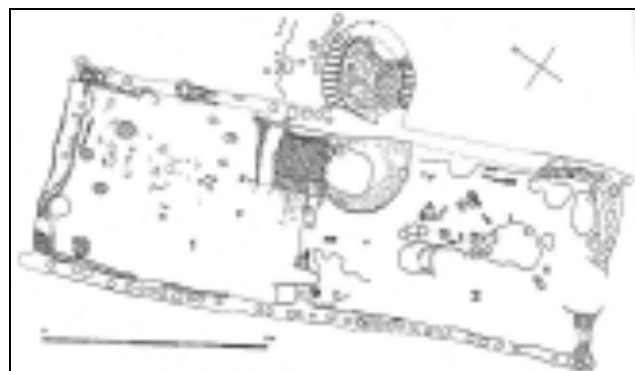
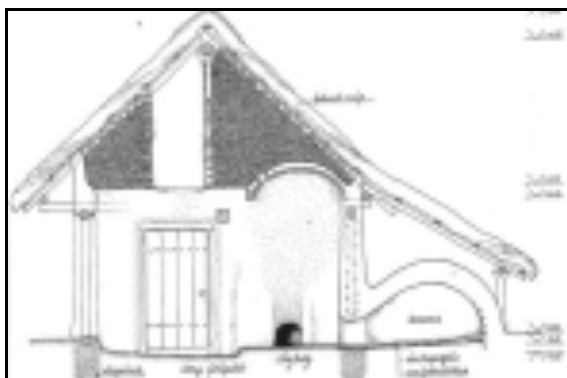


Fig 73 Excavated layout and reconstruction of a medieval house from Szentkirály (after Pálóczi-Horváth, *A késő középkori népi építészet kutatásának újabb eredményei*).

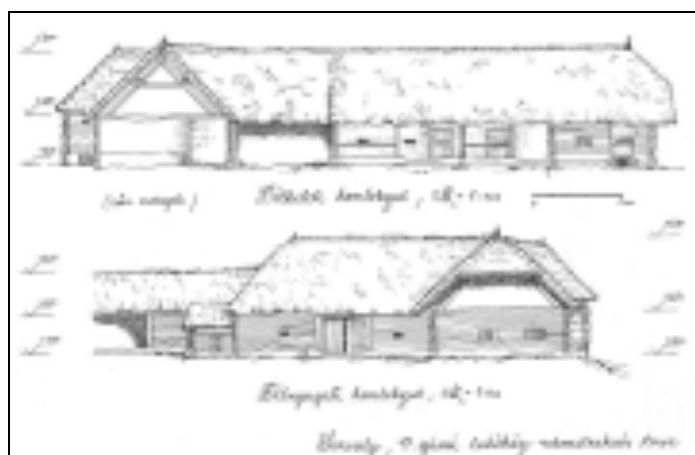


Fig 74 House Nr 17 from Sarvaly, (excavated ground plan and reconstruction), (after Sabján, *Késő középkori lakóházak rekonstrukciója*).

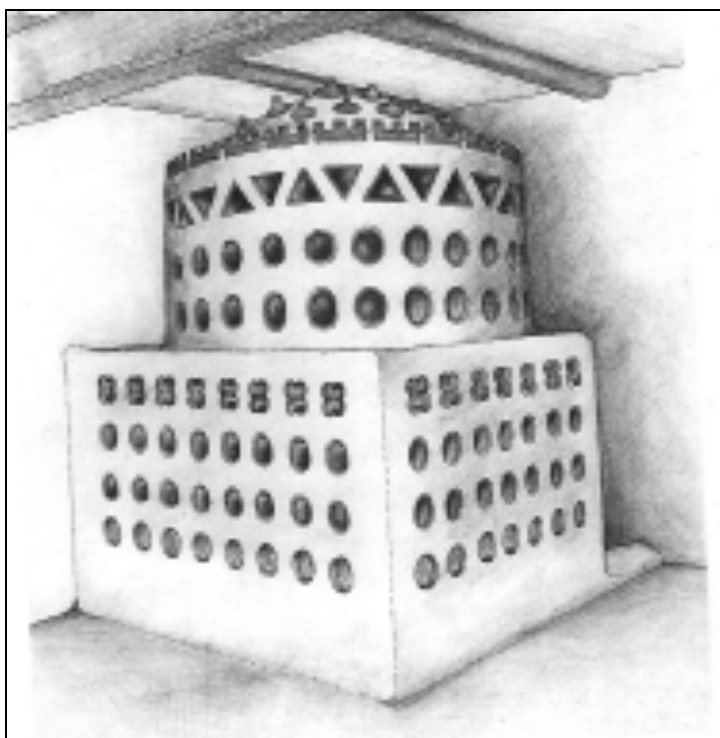


Fig 75 The reconstruction of a tile stove from Szentkirály, (after Sabján, *A késő középkori népies kályháink*).

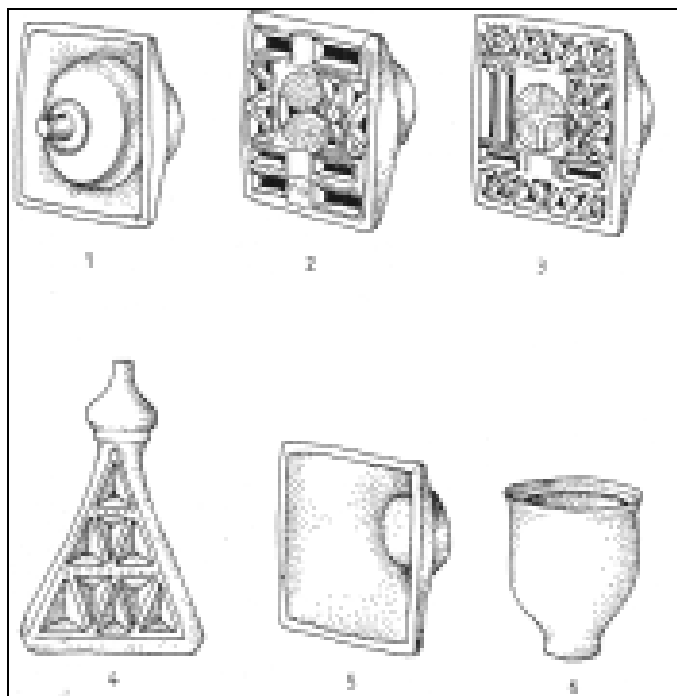


Fig 76 Stove tiles from Lak (after Sabján, *A késő középkori népies kályháink*).



Fig 77 Stove tiles from the Great Plain Region (after Sabján, *A késő középkori népes kályháink*, 295).

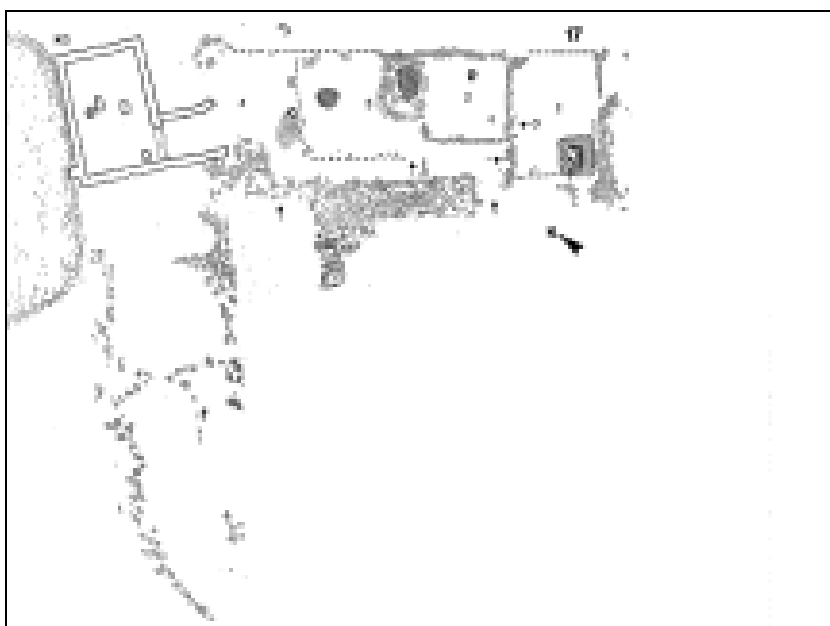


Fig 78 The ground plan of an excavated medieval log house (1,2,3,4) with a stone-built cellar (K3) from Sarvaly (after Holl - Parádi, *Das mittelalterliche Dorf Sarvaly*).



Fig 79 Medieval well from Szentkirály (after Pálóczi, *Puits des villages médiévaux en Hongrie*).



Fig 80 The ecclesiastical organization of Hungary in the medieval period (after Koszta, *Dél-Magyarország egyházi topográfiája a középkorban*).

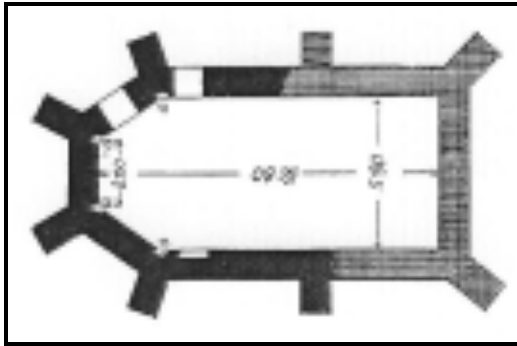


Fig 81 The layout of the deserted church at Mizse (after Szabó, *A magyar nép*).

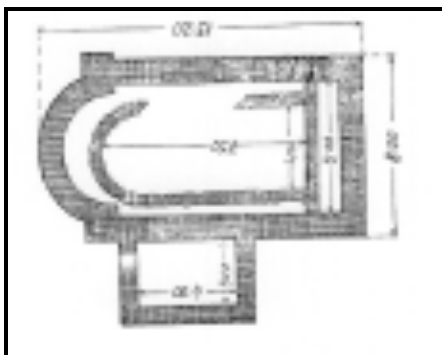


Fig 82 The layout of the deserted medieval church at Bene (after Szabó, *A magyar nép*).

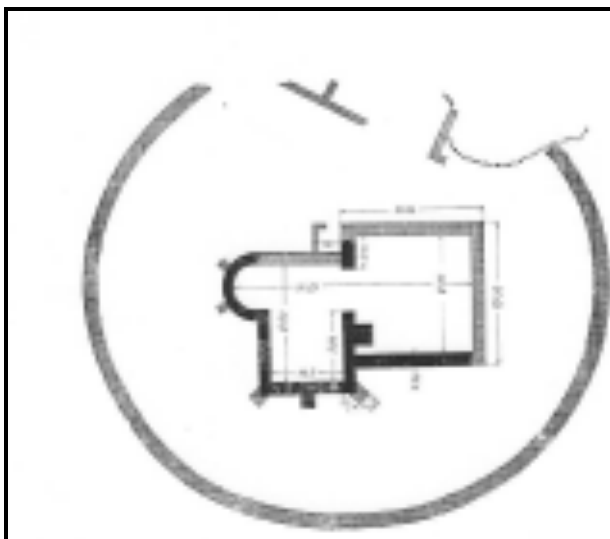


Fig 83 The ground-plan of the deserted medieval church at Baracs (after Szabó, *A magyar nép*).



Fig 84 Monastic communities in the Great Plain Region (after Koszta, *Dél-Magyarország egyházi topográfiája*) Legend: yellow: Benedictine; red: Cistercian; blue: Premonstratensians.



Fig 85 The excavated layout of the monastic complex at Ellésmonostor (after Pávai, *Ellésmonosortor kutatása*).

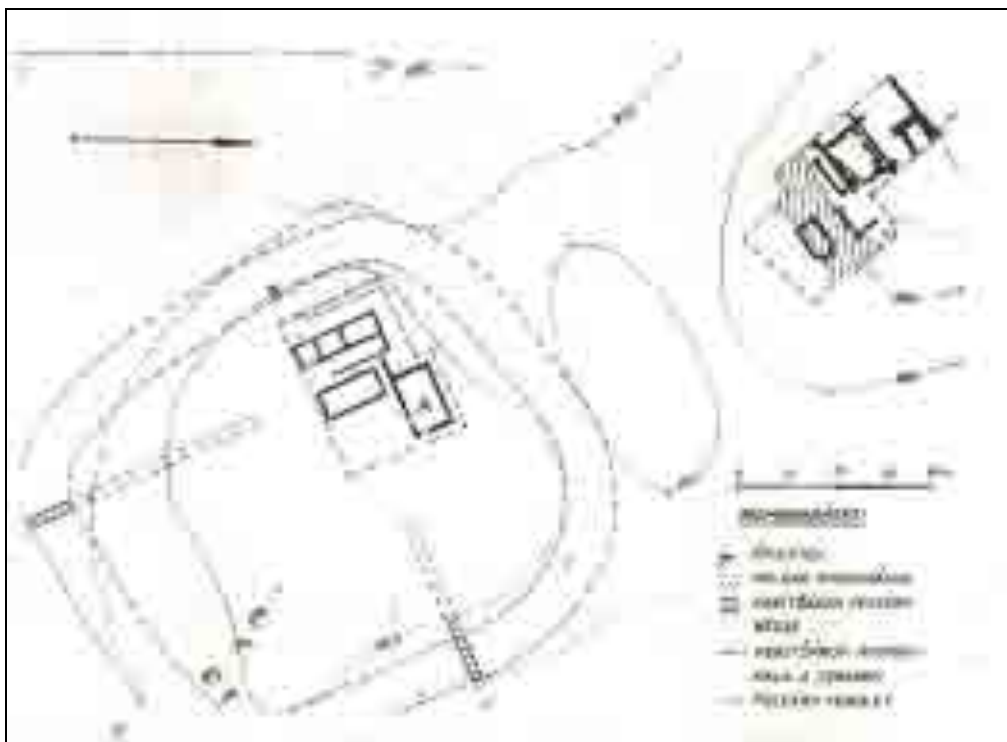


Fig 86 The published excavation plan of the Bátmonostor monastery (after Biczó, *Régészeti kutatások a középkori Bátmonostor területén*).



Fig 87 Horse show at Bugac. Accessed from:
<http://kirandulastervezo.hu/celpont/bugac/bugac-pusztakarikas-csarda>



Fig 88 The intensively cultivated fields and newly forested areas around the modern Bugac village (Google Earth; accessed: 20 Nov 2012)



Fig 89 Detail from the *Tabula Hungariae* showing Kecskemét, Monostor (*Monstor*) and Szentkirály (*S Rex*)

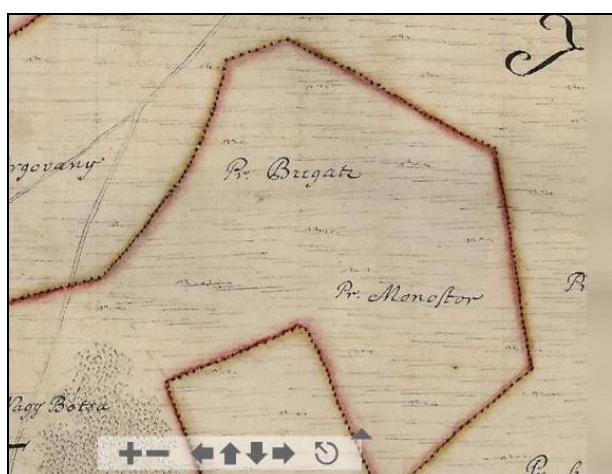


Fig 90 Monostor as depicted by Mikoviny in 1732. Detail from *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, Samuel Mikoviny, (Budapest: Map Collection of the Institute of Military History; accessible at: http://mek.niif.hu/06400/06422/html/top_megye/megye5.htm)



Fig 91 Monostor and Bugac as depicted in 1740. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086).



Fig 92 Monostor and Bugac as depicted in 1793. Detail from *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla (Map Collection of the National Széchenyi Library of Hungary S12 Div 10 No 76:1-2)



Fig 93 Monostor in 1783; *Mappa Predii Monostor*, 1783, author unknown, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20.)



Fig 94 Felsőmonostor as depicted on the First Ordnance Survey (1780-1784)



95 Bugac around 1800; n.n. [without label], c. 1800, author unknown, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20.)

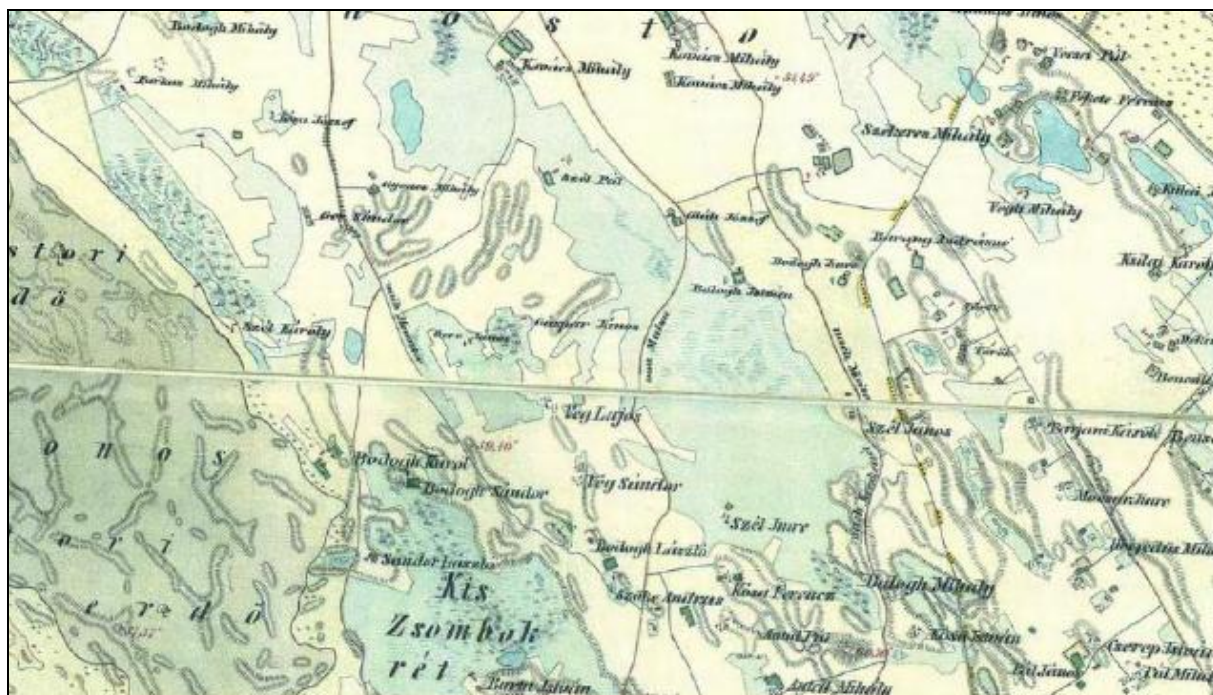


Fig 96 Felsőmonostor on the Second Ordnance Survey (1806-1869)



Fig 97 Bugac and Monostor as represented on the Third Ordnance Survey



Fig 98 The hydrological map of Monostor from 1857; n.n. [without label], 1857, author unknown, Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 21.)

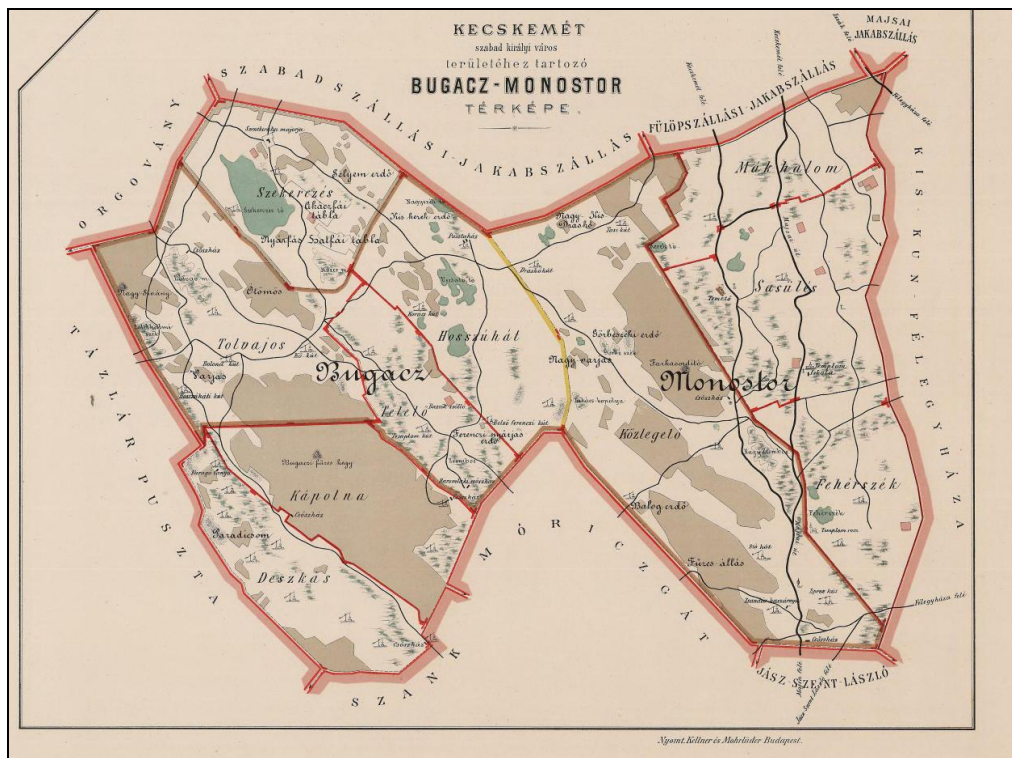


Fig 99 Bugac and Monostor in 1885. Detail from *Kecskemét szabad királyi város területének átnézetű térképe* [The overview of Kecskemét], 1885, by Gusztáv Rihocsek, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483.)



Fig 100 Bugac and Monostor in 1919 Detail from *Kecskemét t.h. város külső területének térképe* [The map of Kecskemét], 1919, by Tibor Kerekes, (Kecskemét: Municipal Archives of Kecskemét).

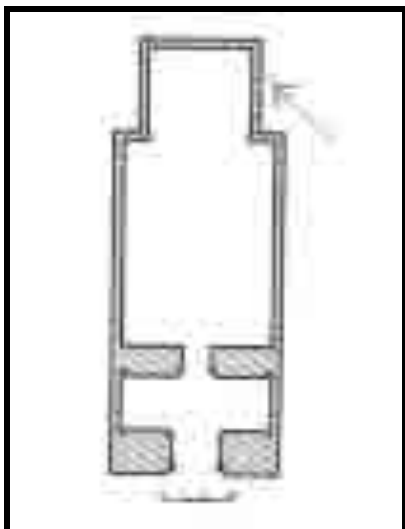


Fig 101 The layout of the deserted church ruin at Alsómonostor, as published in a local newspaper in 1926 (after Rosta, *Pusztatemplomok Kiskunfélegyháza környékén*)

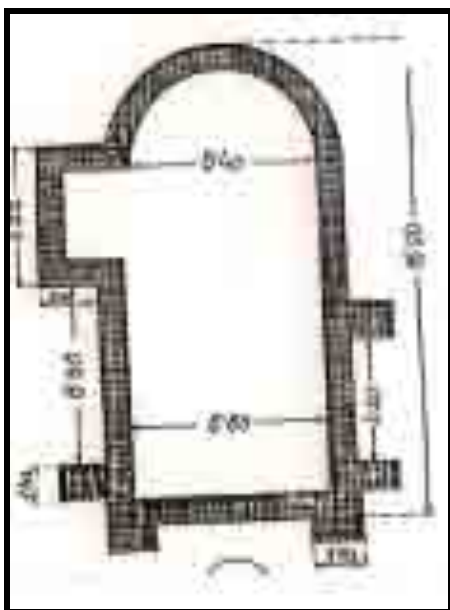


Fig 102 The layout of the deserted church ruin at Felsőmonostor as published by Kálmán Szabó (Szabó, *Az alföldi magyar nép*)

[illegible]

59



Fig 105 The Alsómonostor Árpadian Age village site (aerial photo by Zsuzsa Miklós, 2002)



Fig 106 The Alsómonostor village site. The circle defines the site of the church. (aerial photo by Zsuzsa Miklós, 2002)



Fig 107 The Nagy-Zsombos area at Monostor. (photo by the author, 2002)



Fig 108 The Felsőmonostor settlement area. The square un-ploughed feature in the middle of the ploughed area is the site of the monastic complex (aerial photo by Zsuzsa Miklós, 2002).



Fig 109 The mound which covers the ruins of the Felsőmonostor monastery (photo by the author)



Fig 110 The superposition of the graves of the 11th century cemetery and the place of the later (removed) wall of the monastery at Felsőmonostor (photo by the author, 2011)



Fig 111 The vestry as revealed during the excavation in 2002 (photo by the author)



Fig 112 The excavation plan of the rescue excavation at Felsőmonostor in 2002



Fig 113 A destroyed burial in the churchyard of the Felsőmonostor parish church (photo by the author, 2002)



Fig 114 Seal ring as found *in situ* among the destroyed graves (Photo by the author, 2002)

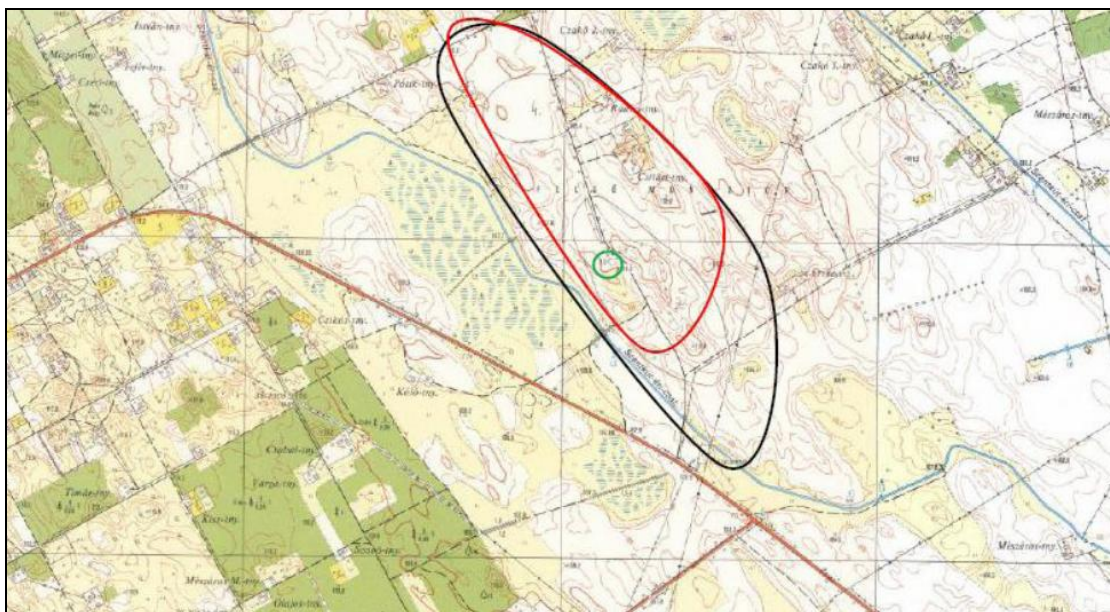


Fig 115 The medieval village site at Felsőmonostor. The green circle stands for the site of the monastery. The larger, black line shows the extension of the Árpadian village, while the smaller, red line depicts the late medieval settlement.



Fig 116 The late medieval village at Felsőmonostor (Aerial photo by Zsuzsa Miklós, 2002)



Fig 117 The late medieval village at Felsőmonostor (Aerial photo by Zsuzsa Miklós, 2002)



Fig 118 The modern village of Szentkirály, with the intensively cultivated fields around. (Google Earth; accessed on 20 Nov 2012)



Fig 119 Szentkirály in 1787; *Planum Exhibens Partem Vayanam Sz.Király*, 1787, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a. 1. Szentkirály 13.)



Fig 120 Szentkirály in 1740. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086).

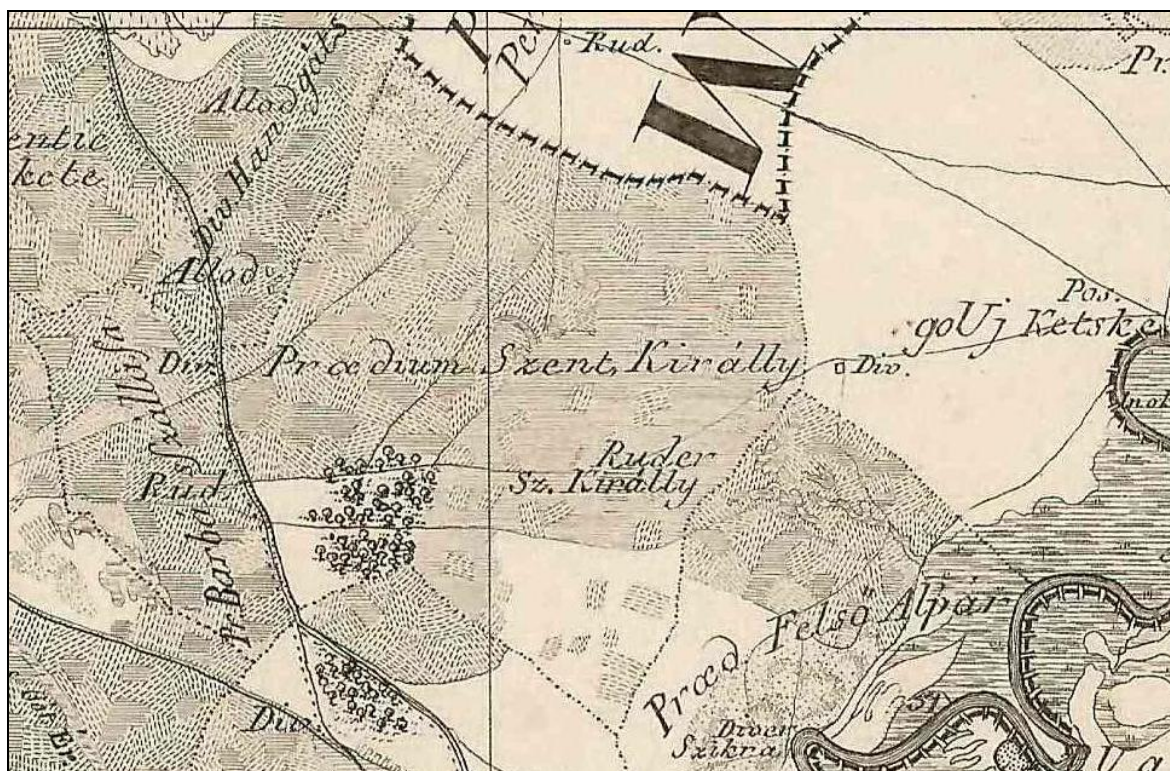


Fig 121 Szentkirály as depicted in 1793, on *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2)

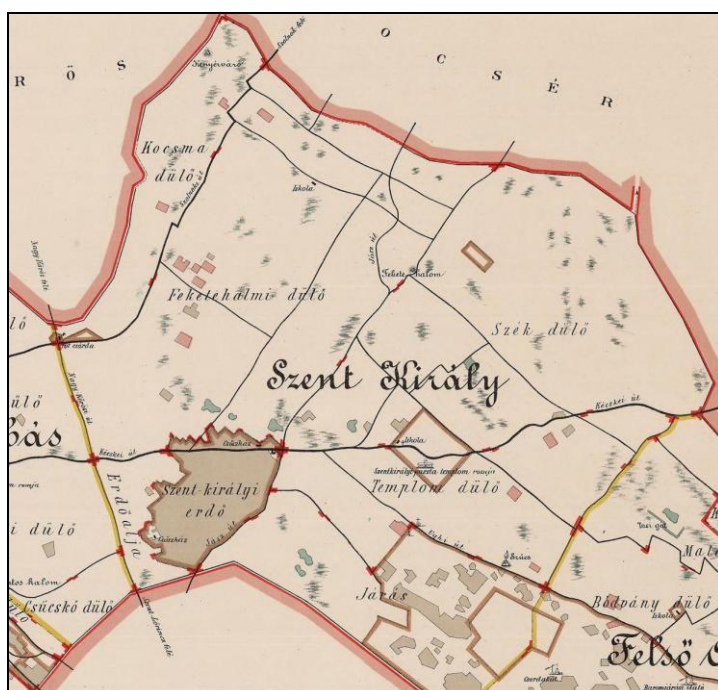


Fig 122 Szentkirály in 1885, detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The overview of Kecskemét], 1885, by Gusztáv Rihocsek, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483.)



Fig 123 Szentkirály as delineated on the Third Ordnance Survey



Fig 124 Szentkirály in 1919. Detail from *Kecskemét t.h. város külső területének térképe* [The map of Kecskemét], 1919, by Tibor Kerekes, (Kecskemét: Municipal Archives of Kecskemét).

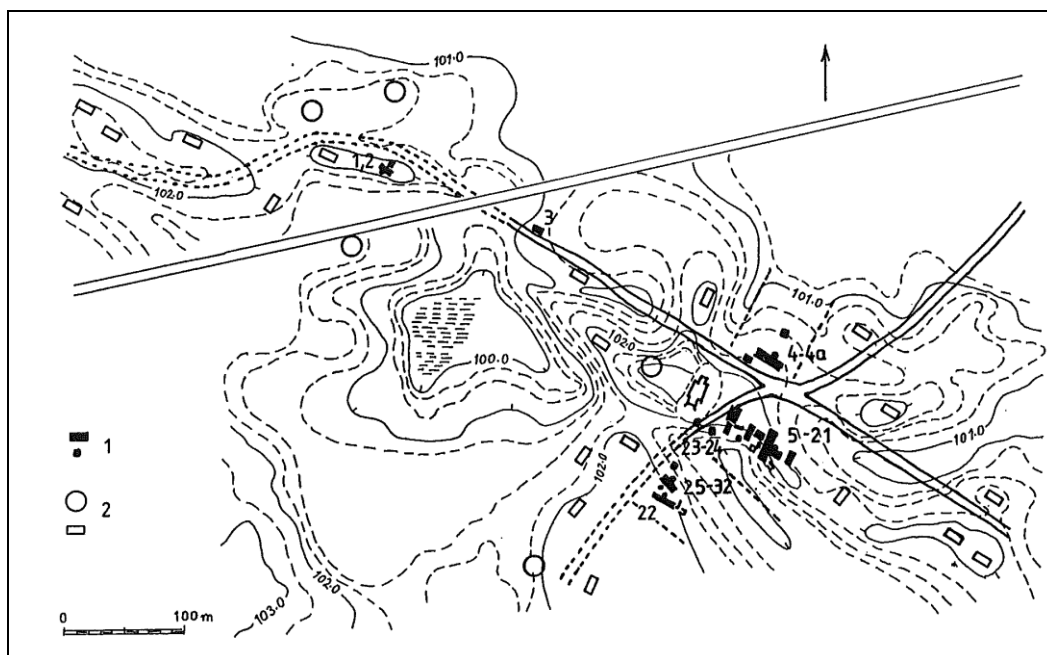


Fig 125 The overview map of András Pálóczi-Horváth's excavation at Szentkirály (after Pálóczi-Horváth, *Élet egy középkori faluban*) Legend: 1: excavated settlement features; 2: settlement features localized through field survey



Fig 126 The excavation area at Szentkirály in the period 2005-2008 (aerial photo by Zsuzsa Miklós, 2005)



Fig 127 The ground plan of the excavation between 2005-2008 (geodetic survey: Zsolt Viemann)



Fig 128 The archaeological topography of Szentkirály (after Pálóczi-Horváth, *A felsőszentkirályi kun sírlelet*)



Fig 129 Szentkirály in the network of regional road system, as delineated on the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2). The circles defines deserted medieval village sites (Drawn by the author)



Fig 130 The surface of the excavated street at Szentkirály (photo by the author, 2005)

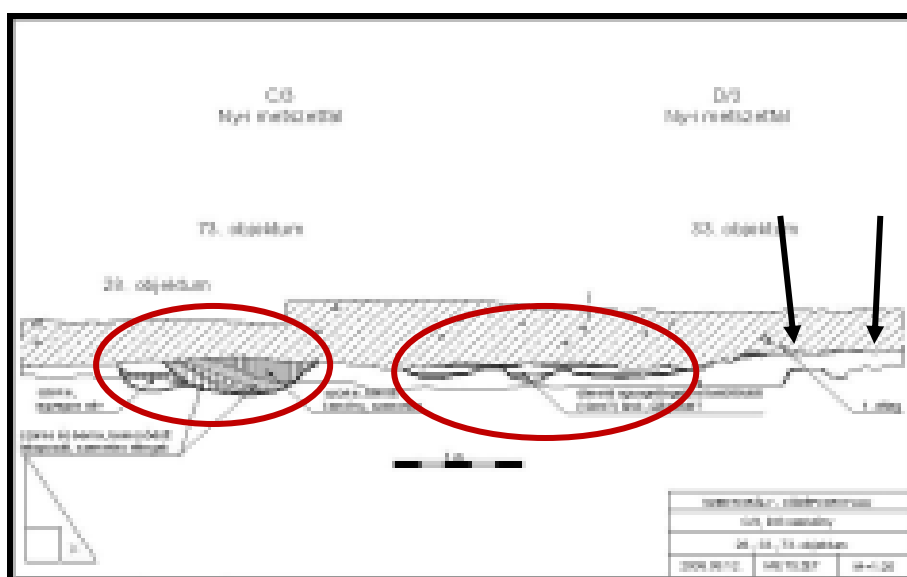


Fig 131 The cross section of the ditches along the northern part of the street; highlighted with circles, the surface of the road is shown with the arrows.



Fig 132 The crossing of the ditch along the street and the plot-boundary fence during excavation (Photo by the author, 2005)

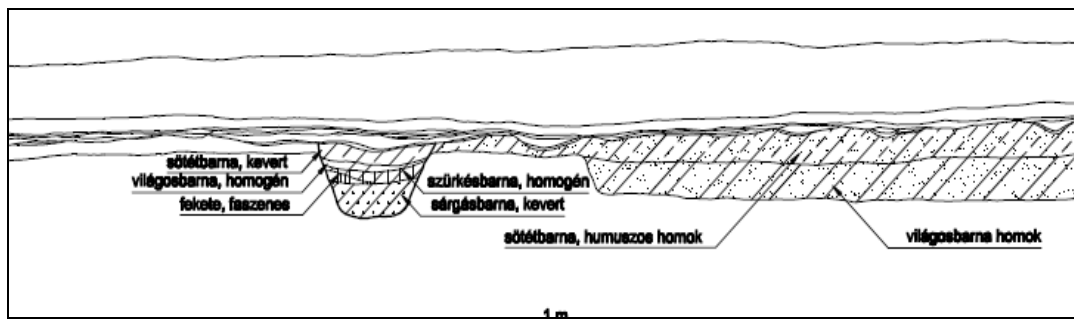


Fig 133 The section of the street with the refuse pit that was covered by the layers of the street
(Drawn by the author, 2005)



Fig 134 The section of the street, with the pit found as buried by the road (after rain, photo by the author)

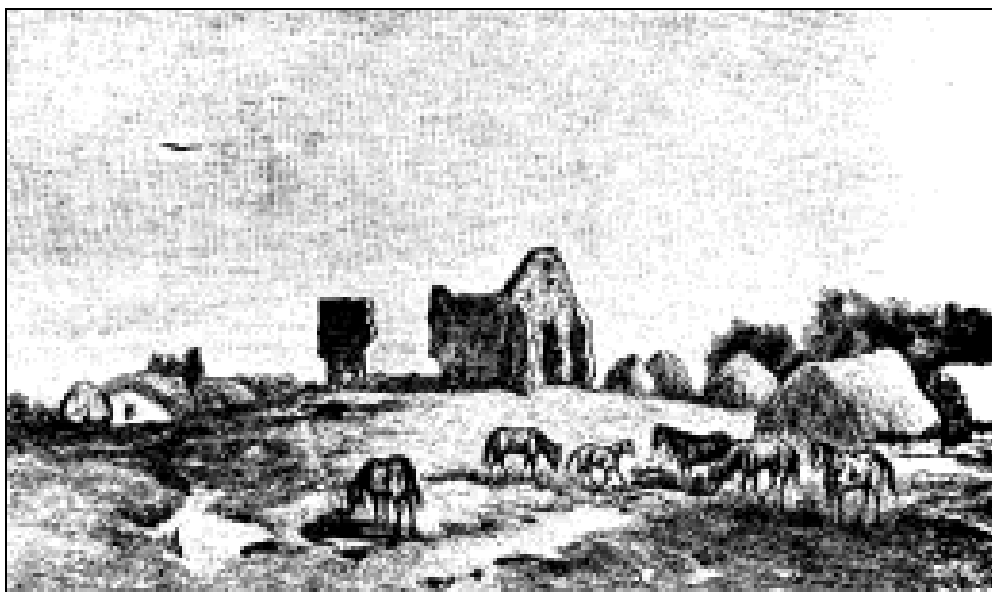


Fig 135 The church ruin of Szentkirály in the 19th century (after Pálóczi-Horváth, *A Lászlófalván 1969-74. években végzett*)

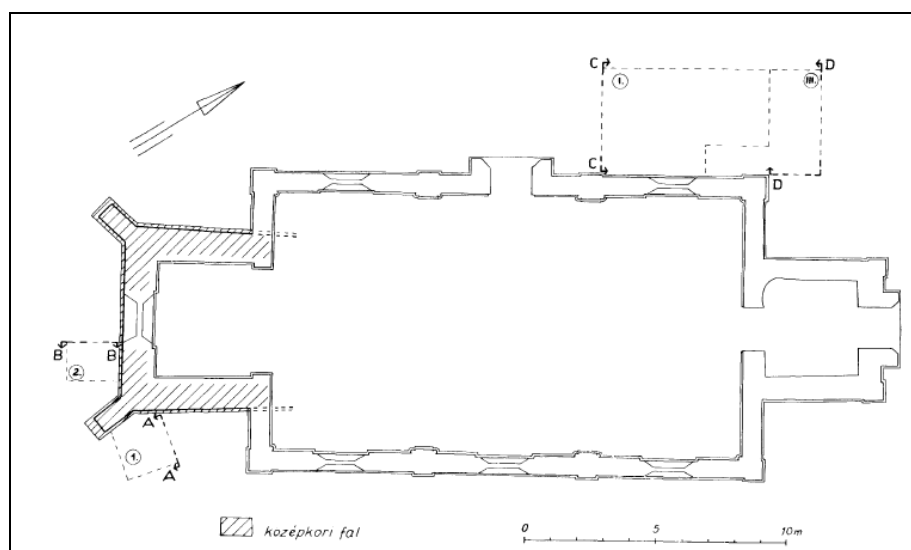


Fig 136 The ground-plan of the Szentkirály church (after Pálóczi-Horváth, *A Lászlófalván 1969-74. években végzett*)

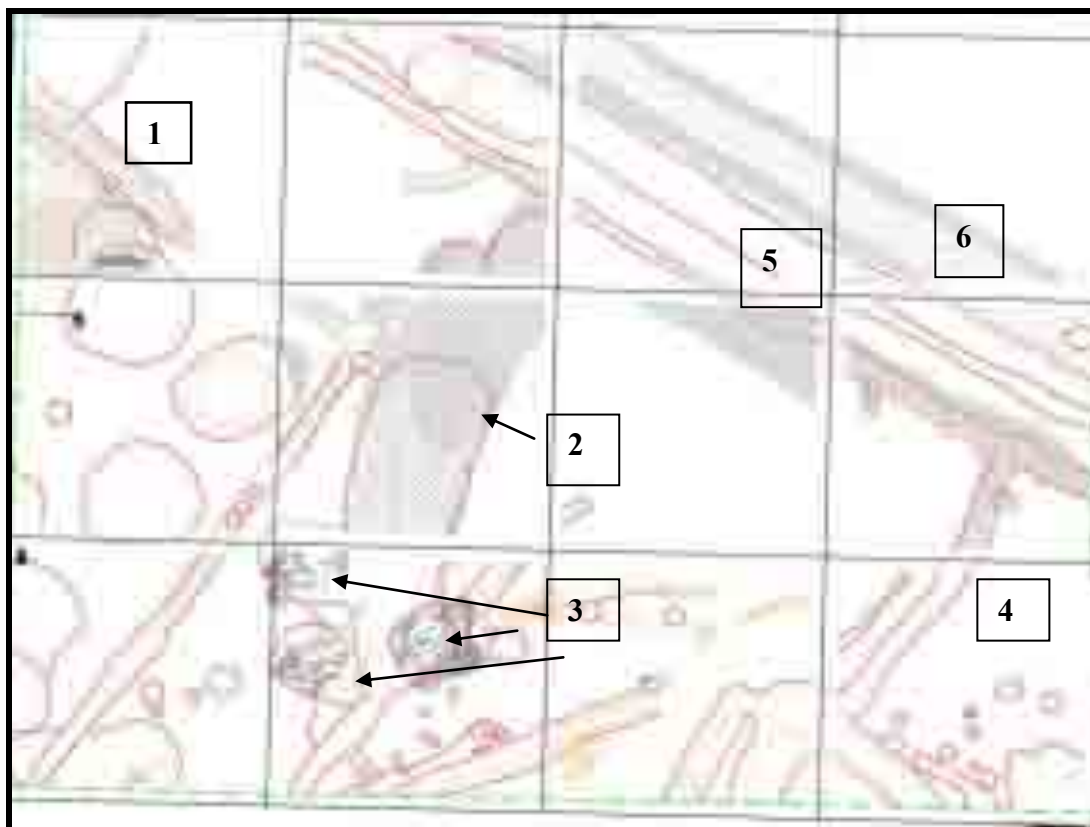


Fig 137 Excavated features south of the road. Legend: 1: building (barn?); 2: firehaed platform of an oven; 3: deposits of stone; 4: fence or ditch dividing plots; 5: ditch-system parallel to the street; 6: surface of the street



Fig 138 The refuse pit filled with unprocessed lime stones (photo by the author 2005)



Fig 139 External oven and the series of postholes of the nearby building (barn?) (photo by the author 2005)

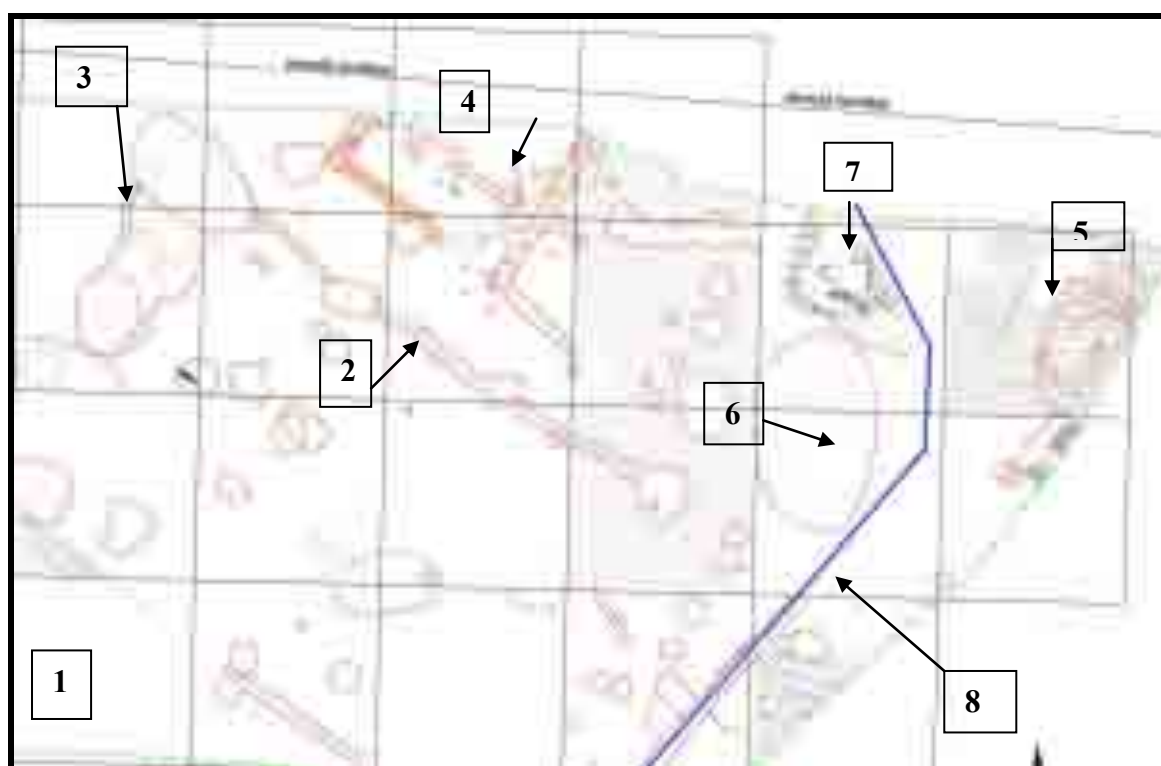


Fig 140 The details of the features excavated north of the street. Legend: 1: surface of the street; 2: fence; 3: sty; 4: detail of a house; 5: detail of a house; 6: well; 7: cellar or pitfall; 8: modern water-conduit.



Fig 141 House during excavation (signed on the previous figure as Nr 4) (photo by the author, 2007)



Fig 142 The foundation ditches of the house (photo by the author, 2007)



Fig 143 The sty during the excavation (photo by the author, 2006)



Fig 144 The well during the excavation (photo by the author, 2007)



Fig 145 The cellar during the excavation (photo by the author, 2008)

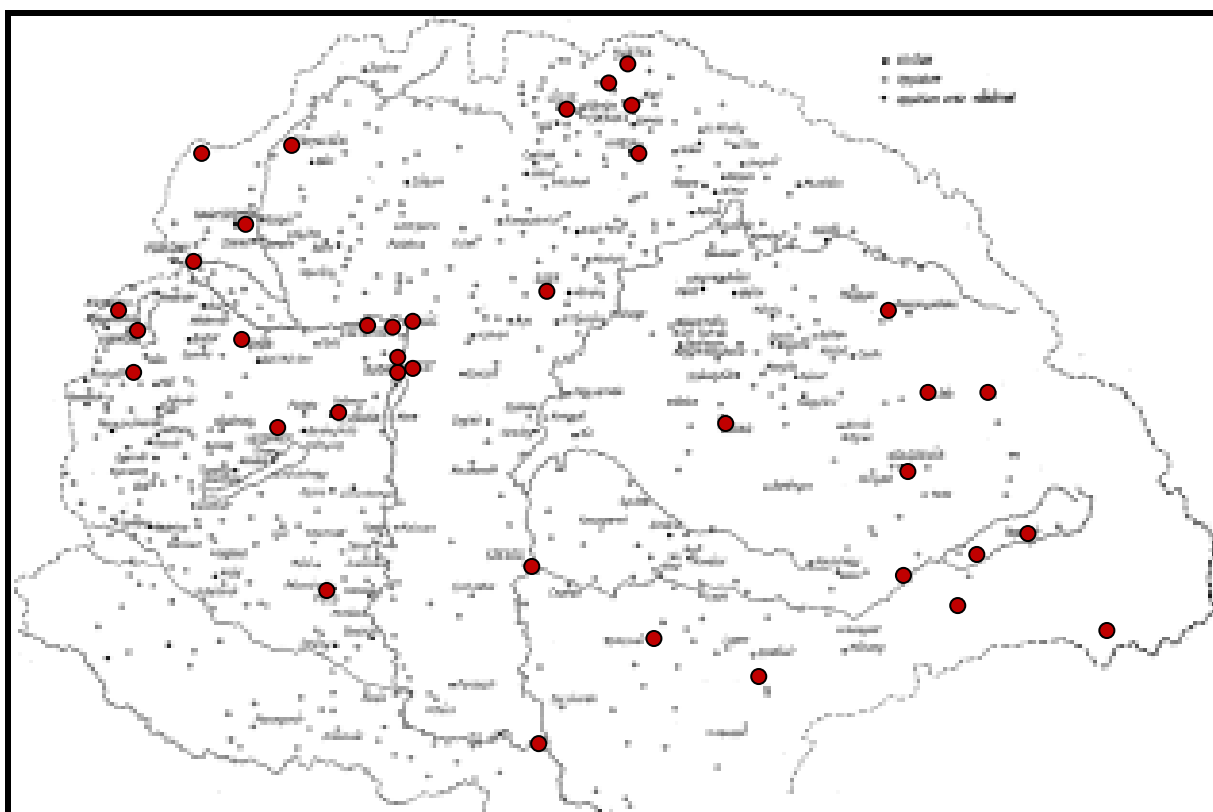


Fig 146 Main urban settlements in Hungary in the 15th century (drawn by the author after Bácskai, *Mezővárosok* and Kubinyi, *Városhálózat a késő középkori Magyarországon*)



Fig 147 Market zones in the Great Plain Region (after Kubinyi, *Városfejlődés és vásárhálózat*)

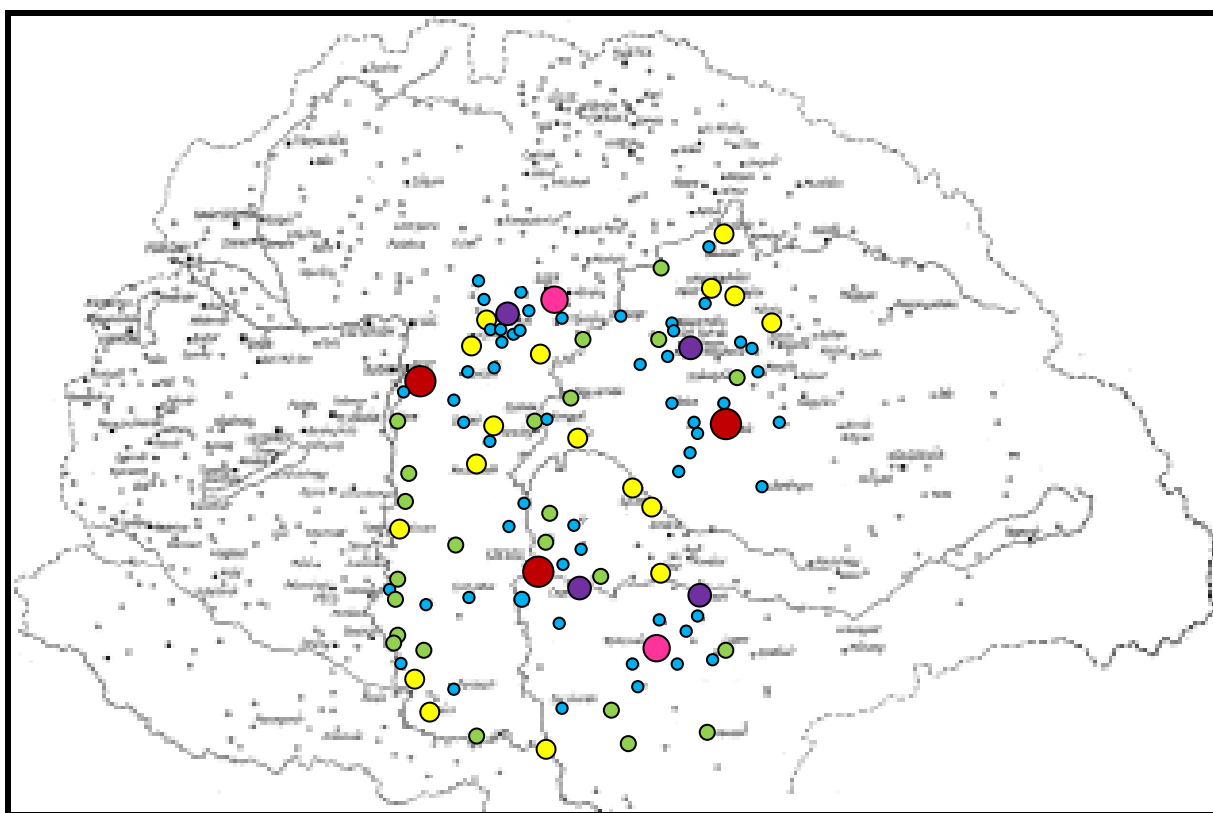


Fig 148 Central places in the great Hungarian Plain (drawn by the author after Bácskai, *Mezővárosok* and Kubinyi, *Városfejlődés és vásárhálózat*)

Legend: the colors represent categories of urban function as defined by Professor Kubinyi: **red** primary urban centers; **pink**: major urban centers, important ecclesiastical and administrative centers; **purple**: smaller towns and significant market towns with remarkable urban functions; **green**: central places with limited urban functions; **blue**: villages resembling market towns

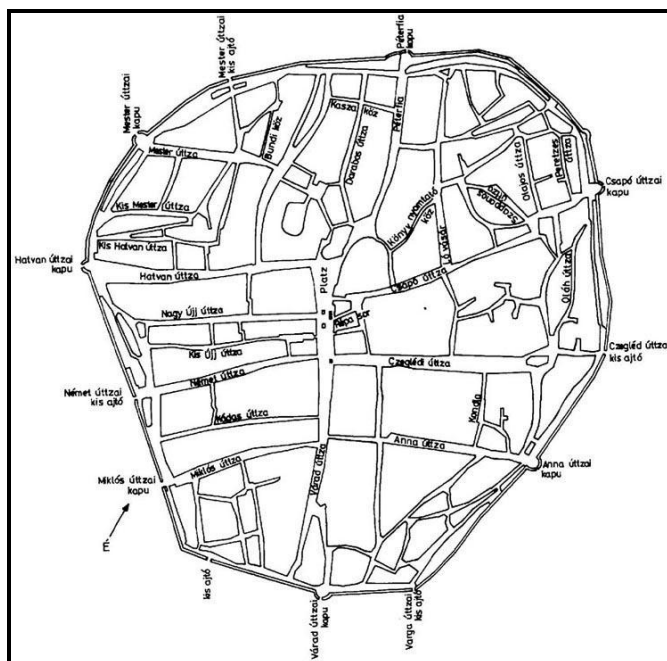




Fig 151 The reconstructed layout of Gyula in the late medieval period (after Blazovich, *Dél alföldi városok*)

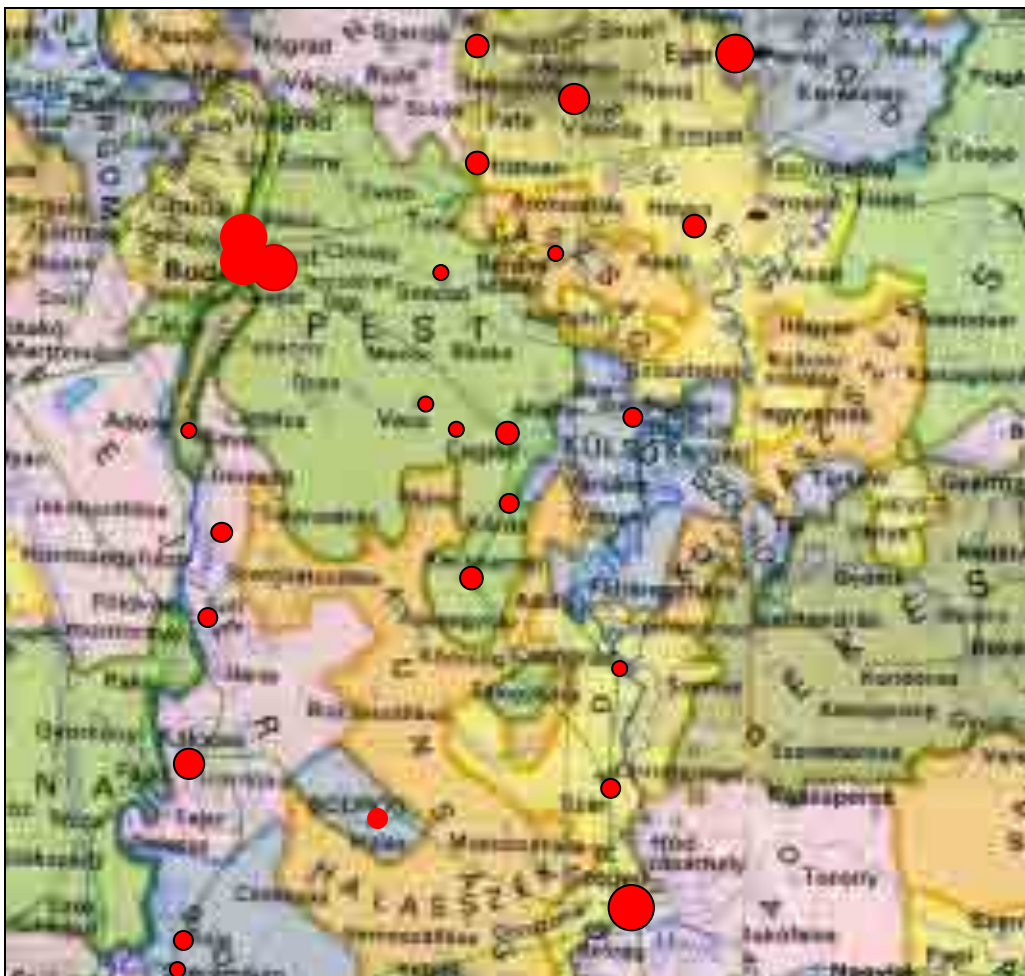


Fig 152 Urban settlements in the Danube-Tisza Interfluvium Region (Drawn by the author)

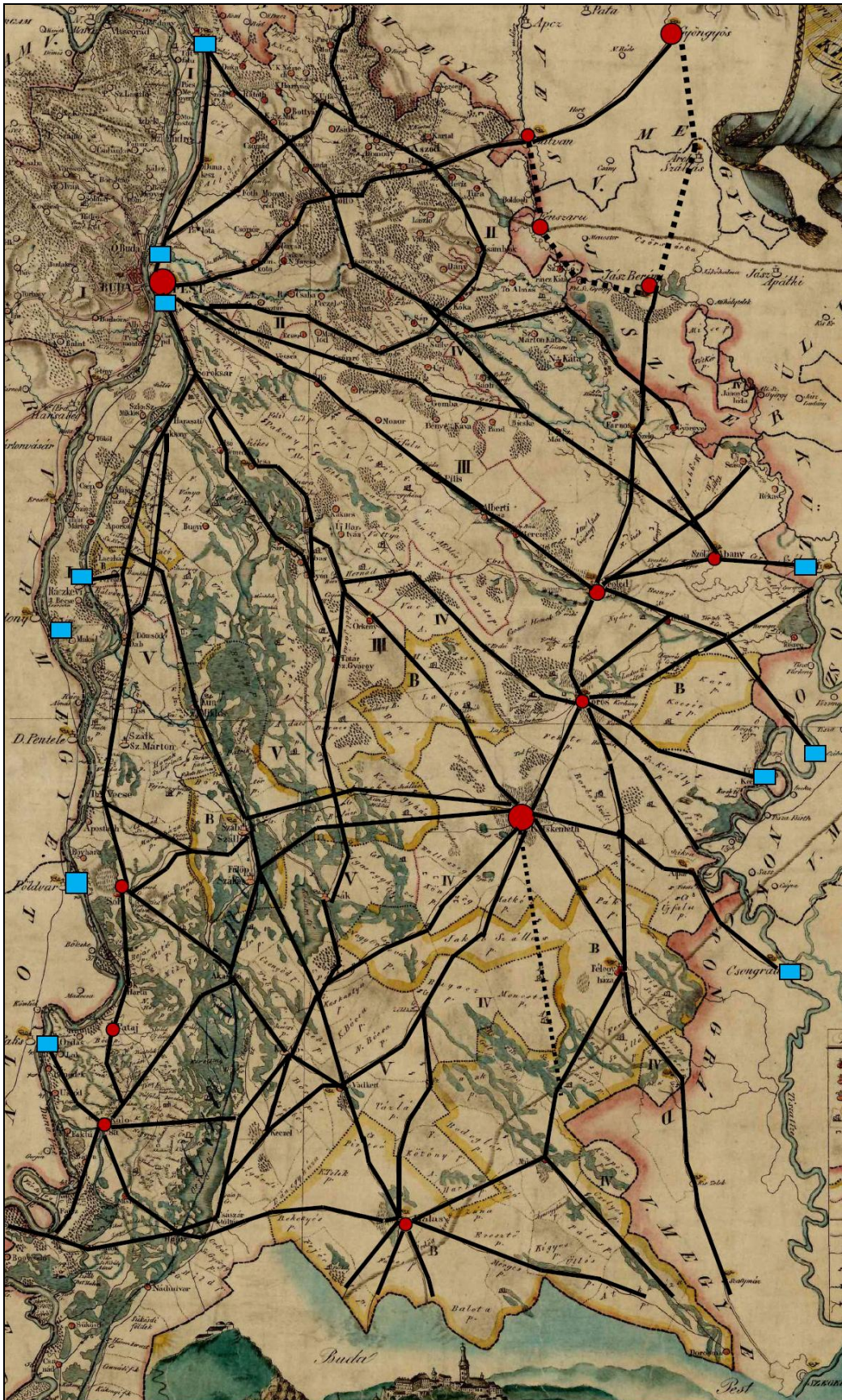


Fig 153 The schematized picture of the traffic routes in the Great Plain Region (drawn by the author based on the 1834 county map)



Fig 154 Count István Koháry (1649-1735), the landlord of Kecskemét from 1702



Fig 155 Kecskemét on the *Mappa Partis Hungariae qua Iazyges Cumani Maiores et Minores Continentur*, Samuel Mikoviny, (Budapest: Map Collection of the Institute of Military History; accessed at: < http://mek.niif.hu/06400/06422/html/top_megye/megye5.htm>)



Fig 156 Kecskemét and the surrounding territory in 1740. Detail from the *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086).

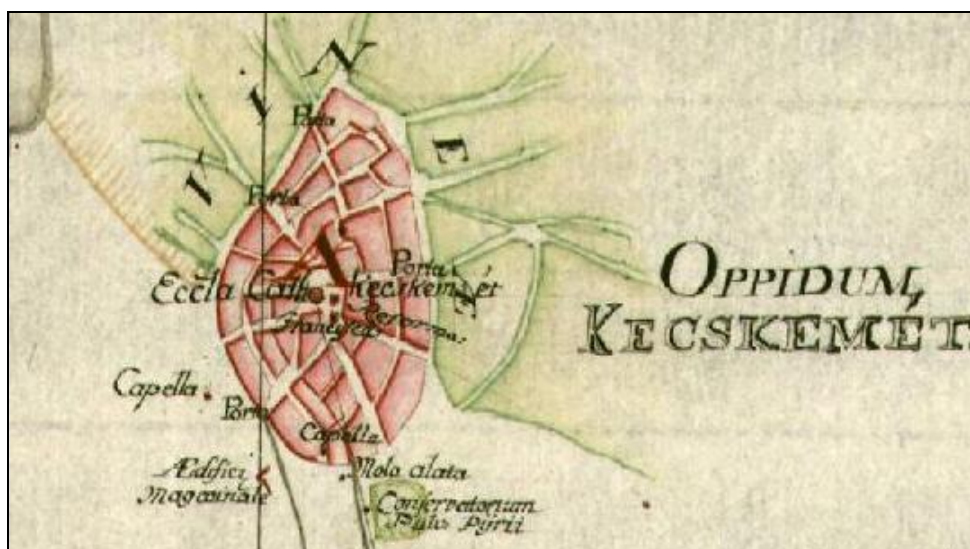


Fig 157 Kecskemét, detail from *Accurata delineatio situm seu cubitum viae postalis, ac una commercialis quae inter oppida Kecskeméth et Félegyháza intercedit una cum punctis illis, in quibus in quaestione existentia loca physica nimirum verum situantur repraesentans* by Antonius Balla, before 1788, (Budapest: National Archives of Hungary, S 12 Div XVIII No 0023)



Fig 158 Kecskemét as depicted on the county map in 1793. Detail from *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2)



Fig 159 Kecskemét in 1834. Detail from *Pest-Pilis és Solt törv. egyesült Vármegyék és a Kis Kunság Föld Képe* (Budapest: National Archives of Hungary, S12 Div 11 No 89)



Fig 160 Kecskemét on the First Ordnance Survey in 1783



Fig 161 The Kápolna Street in 2012 (photo by the author)



Fig 162 The Nagykőrösi (Kőrösi) Street in 2012 (photo by the author).



Fig 163 The Csongrádi Street in 2012 (photo by the author)



Fig 164 The Halasi Street in 2012 (photo by the author).



Fig 165 The Great Vásári Street (today: Petőfi Street) in 2012 (photo by the author).



Fig 166 Mária Street from the north in 2012 (photo by the author).



Fig 167 The Mária Street from the south in 2012 (photo by the author).



Fig 168 Budai Street in 2012 (photo by the author).



Fig 169 Szolnoki Street in 2012 (photo by the author).

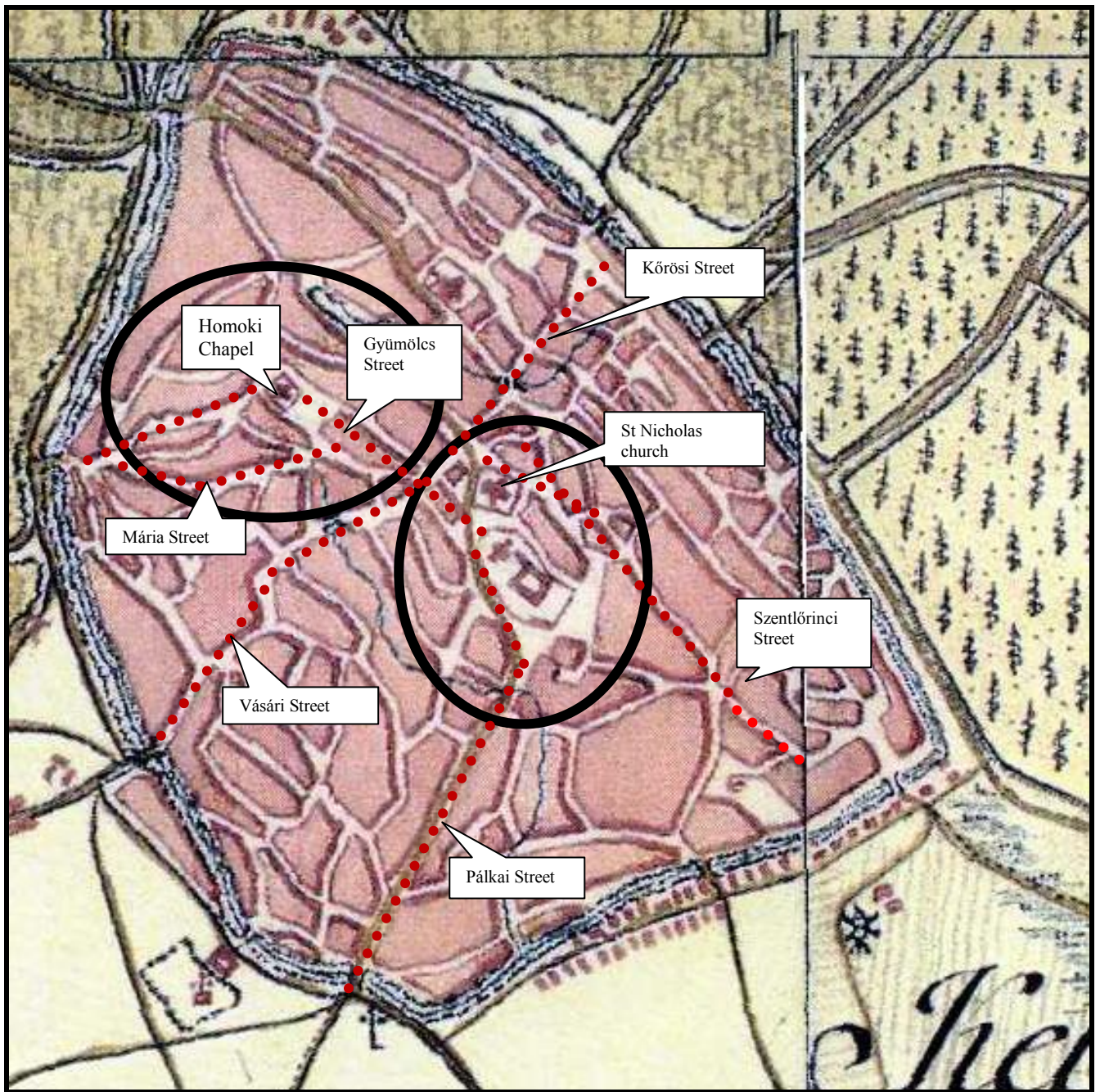


Fig 170 Identified late medieval streets and the parish churches of Kecskemét (Drawn by the author)

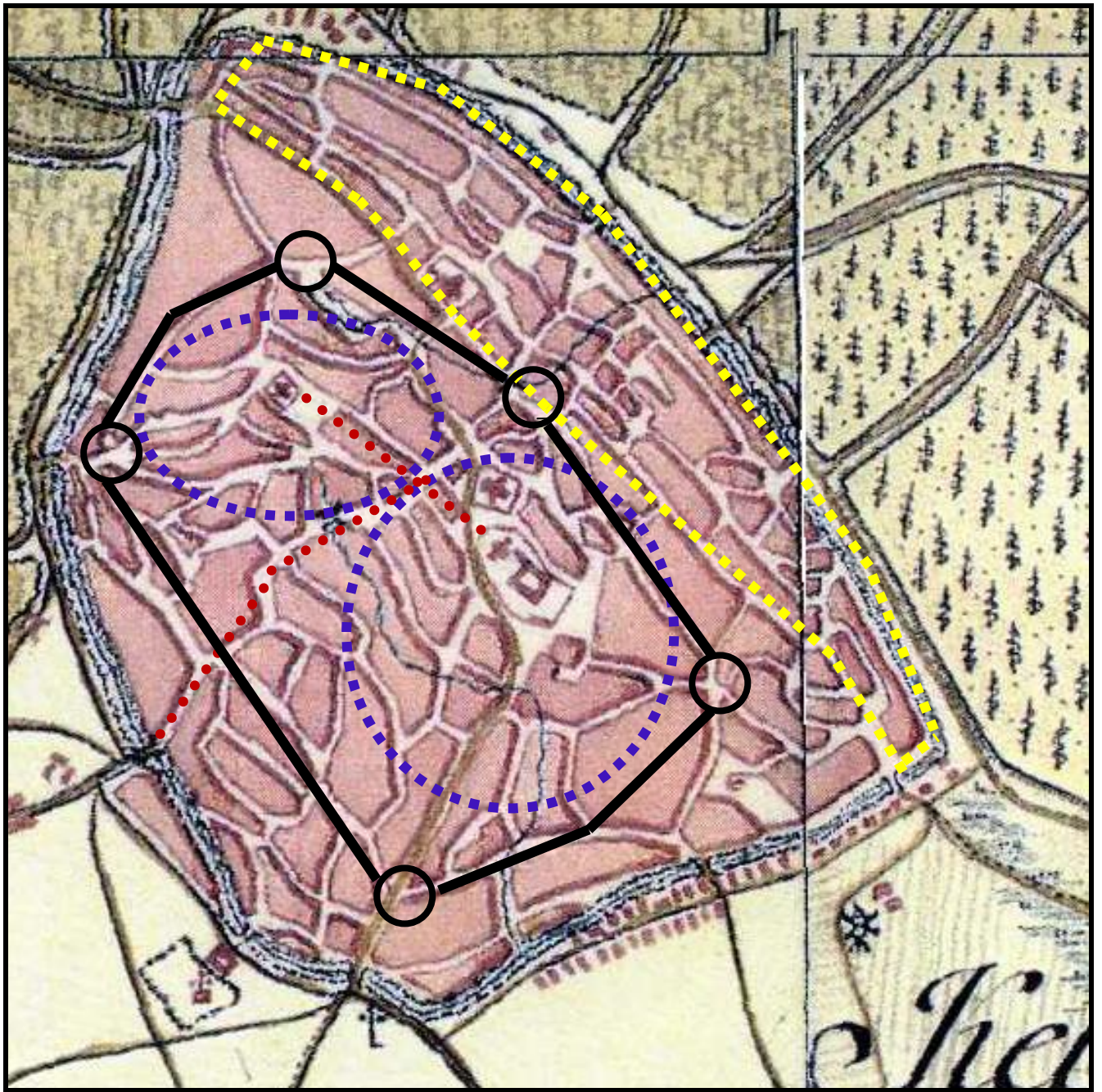


Fig 171 The hypothetised extension of the medieval town (drawn by the author)

Legend: black: hypothetised extension of the town in the late medieval period; blue: the two medieval settlement cores; red: Vásári Street; green: Gyümölcs Street; yellow: eighteenth century settlement phase



Fig 172 The centre of Kecskemét in 1929. Detail from *Kecskemét törvényhatósági jogú város térképe* [The map of Kecskemét], 1929, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét)



Fig 173 The former course of the town ditch, today Széchenyi körút (photo by the author).



Fig 174 The site of the Budai Gate, today a significant traffic junction (photo by the author).



Fig 175 The site of the Homoki Gate at the end of Kápolna Street (photo by the author)



Fig 176 The site of the Sandy Chapel on *Szabados Kecskemét Várossának az 1819dik esztendőben Április 2dik napján történt gyulladás alkalmatosságával meg égett részét előterjesztő eredeti Mappa* [The delineation of those parts of Kecskemét, which were burnt down in 1819], 1819, by Pál Battyány, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a 41, Kecskemét 355)



Fig 177 The site of the Sandy Chapel on a modern 1.10000 cadastral map



Fig 178 The site of the Sandy Chapel in 2012 (Photo by the author).



Fig 179 The Sandy Chapel on the millers' guild letter (1848, detail; after Enzt-Genton-Szappanos, *Kecskemét*)



Fig 180 The Sandy Chapel on the weavers' guild letter (1848, detail; after Enzt-Genton-Szappanos, *Kecskemét*)

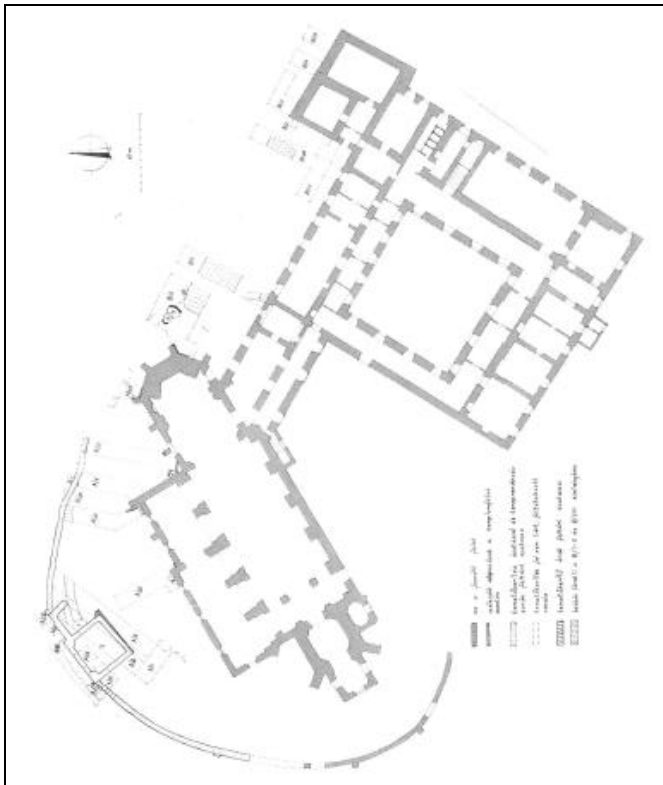


Fig 181 The ground plan of the Saint Nicholas church with the Franciscan Friary (after Biczó, *Jelentés a kecskeméti Kossuth téren végzett ásatásról*)



Fig 182 The Saint Nicholas Parish Church today, with the Saint Anthony Chapel (Photo by the author)



Fig 183 The medieval wall of Saint Nicholas' with the remains of St Michael' Chapel (Photo by the author).



Fig 184 The Calvinist church at Kecskemét (photo by the author)

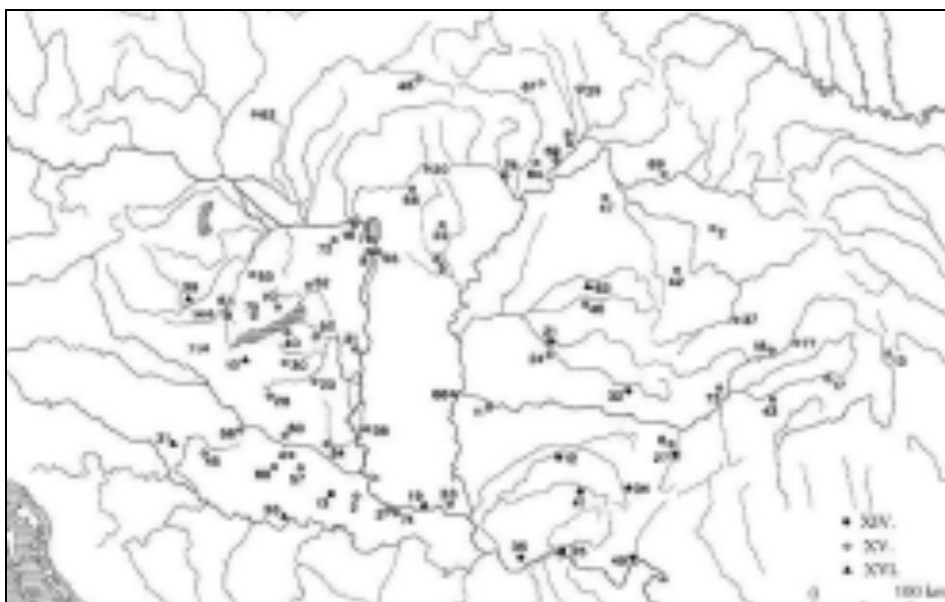


Fig 185 Observant Franciscan Friaries in Hungary (designed by Beatrix Romhányi, drawn by Endre Egyed; as accessed from: <<http://mek.oszk.hu/01900/01918/html/index1286.html>>)



Fig 186 The Franciscan Friary at Kecskemét (photo by the author)



Fig 187 Detail from *Mappa Regni Hungariae demonstrans universas caesareo regias salis stationes. Regis Hungariae, Croatiae, Slavonia, magni item Principatus Transilvaniae ingremiatis, Posonii*, dating from 1773, showing a salt trade route between Szeged and Buda through the Great Plain, (Budapest National Széchenyi Library; as accessed from: <http://www.oszk.hu/terkepgaleria>)



Fig 188 The “Só út” [Salt road] , detail from *Kecskemét t.h. város külső területének térképe* [The outer territories of Kecskemét], by Tibor Kerekes, 1919, (Kecskemét: Municipal Archives of Kecskemét)

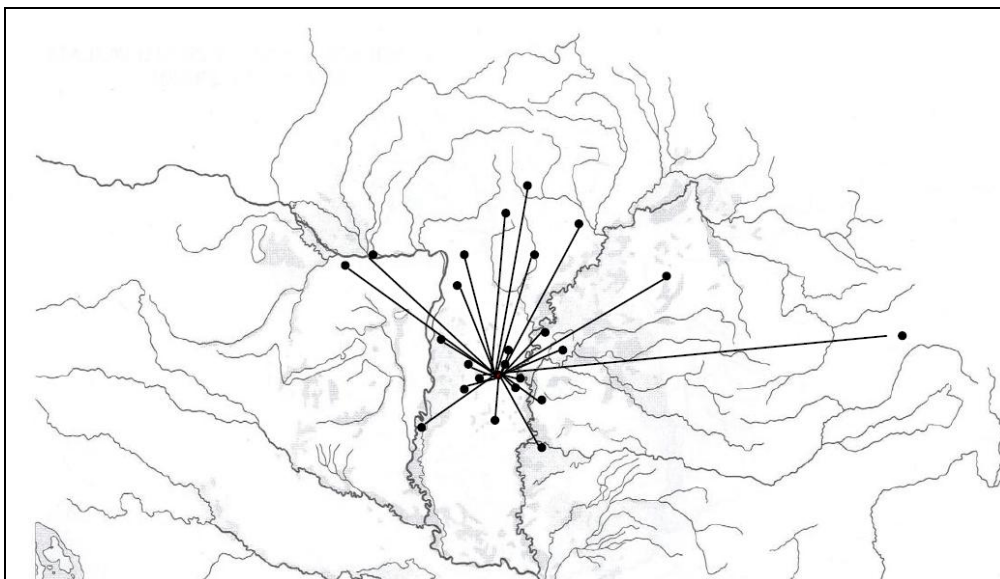


Fig 189 The market connections of Kecskemét (drawn by the author)



Fig 190 The market square around 1790 . Detail from *Kecskemét 3. tizedének felmérése* [The topographic survey of the third district of Kecskemét] (Kecskemét: Municipal archives of Kecskemét XV. 1. a. 0001)

[illegible]

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Fig 193 The *Vásártér* [The fair-field], cca. 1800, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét, BKML XV. 1/a, 5. téka, 136/a)



Fig 194 *Vásárállás, Serház, Kecskéházi Fogadó és Kápolna felmérése* [The delineation of the Fair-field, Serház, Kecskéház Inn and the Chapel], cartographer unknown, 1806, (Kecskemét: Bács Kiskun Megyei Levéltár, XV. 16a 53. téka 136)



Fig 195 The Vásártér [Fair-field] in 1885. Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The overview of Kecskemét], 1885, by Gusztáv Rihocsek, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483.)



Fig 196 The Vásártér [Fair-field] in 1905. Detail from *Kecskemét Törv. Hat. Város térképe* [The map of Kecskemét], by Gusztáv Rihocsek, 1905, (Kecskemét: Municipal Archives of Kecskemét)



Fig 197 The former Cédulaház (today Museum of Ethnography) in 2012 (photo by the author)



Fig 198 The Vásártér area [Fair-field] in 2002 (1:10.000 cadastral map)



Fig 199 The Vásártér area (Photo by the author)



Fig 200 The fourteenth century seal of the town (Sigillum civitatis de Kechkemeth) (after H.Kolba, *Sigillum civitatis de Kechkemeth*)



Fig 201 The seal of Kecskemét from 1646 (after Entz-Genthon-Szappanos, *Kecskemét*)



Fig 202 The old Town hall as represented on a drawing from the 1870s. The town hall is at the left side, encircled two-storey building behind the sentry-box (after Entz-Genthon-Szappanos, *Kecskemét*)



Fig 203 The medieval tower as built into the complex of the Franciscan Friary (Photo by the author).

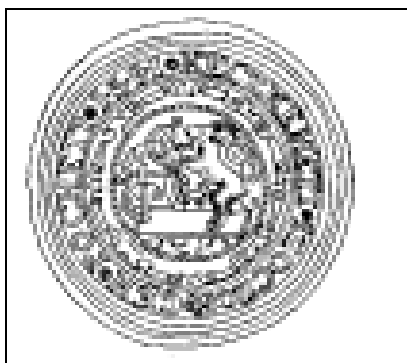


Fig 204 The seal of the furriers's guild from 1591 (after Entz-Genthon-Szappanos, *Kecskemét*)

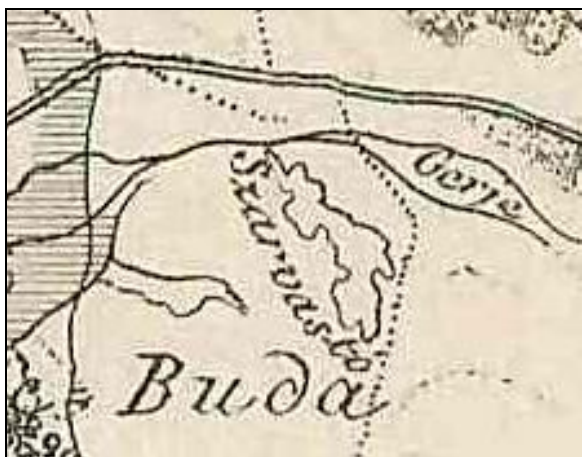


Fig 205 Szarvas-tó as it is represented in 1793. *Mappa specialissima regionibus coeli juxta recentissimas observationes astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, (Budapest: Map Collection of the National Library S12 Div 10 No 76:1-2)



Fig 206 The 'farkasakazthokurtuel' as represented in 1750. Detail from *Delineatio Territorii Oppidi Cegléd*, by Michael Ruttkay, 1750, (Budapest: National Archives of Hungary, S 12 Div I No 0057)

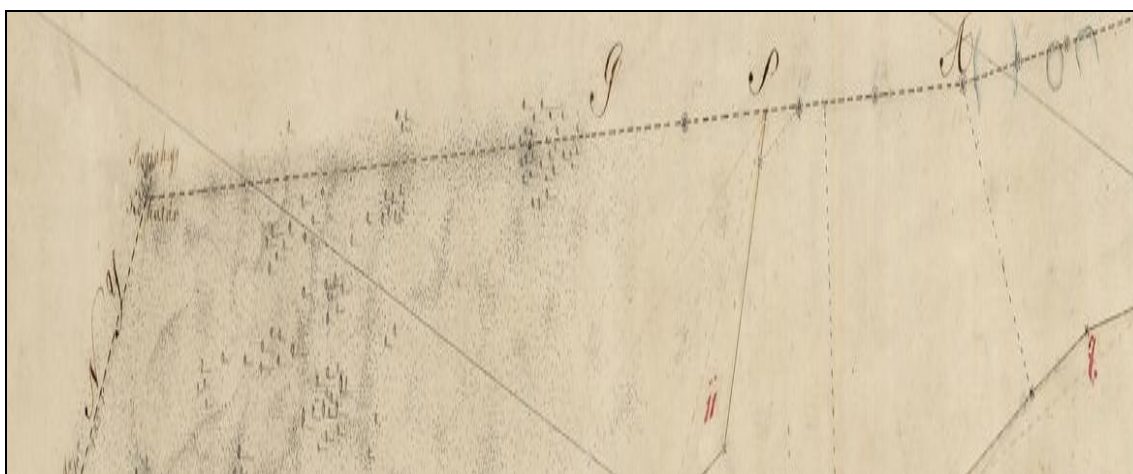


Fig 207 A series of mapped boundary marks, probably earth heaps, along the northern border of Ágasegyháza, in 1834 Detail from the cadastral map of Ágasegyháza, 1834, author unknown, (Kecskemét: Municipal Archives of Kecskemét, Ágasegyháza 001)

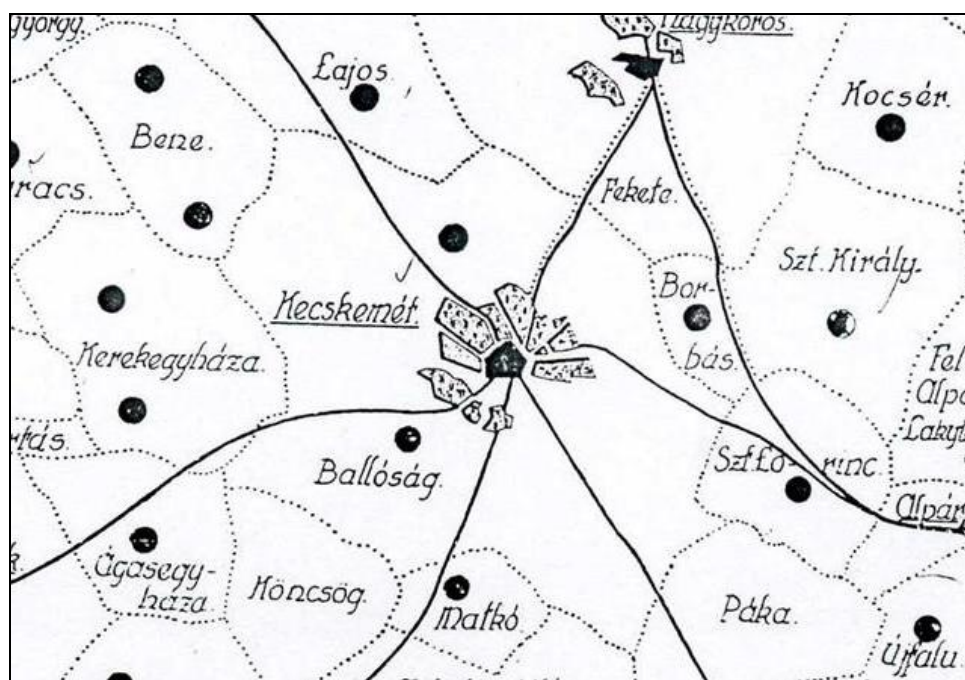


Fig 208 Kecskemét and its neighbours (after Szabó, *Az alföldi magyar nép*)

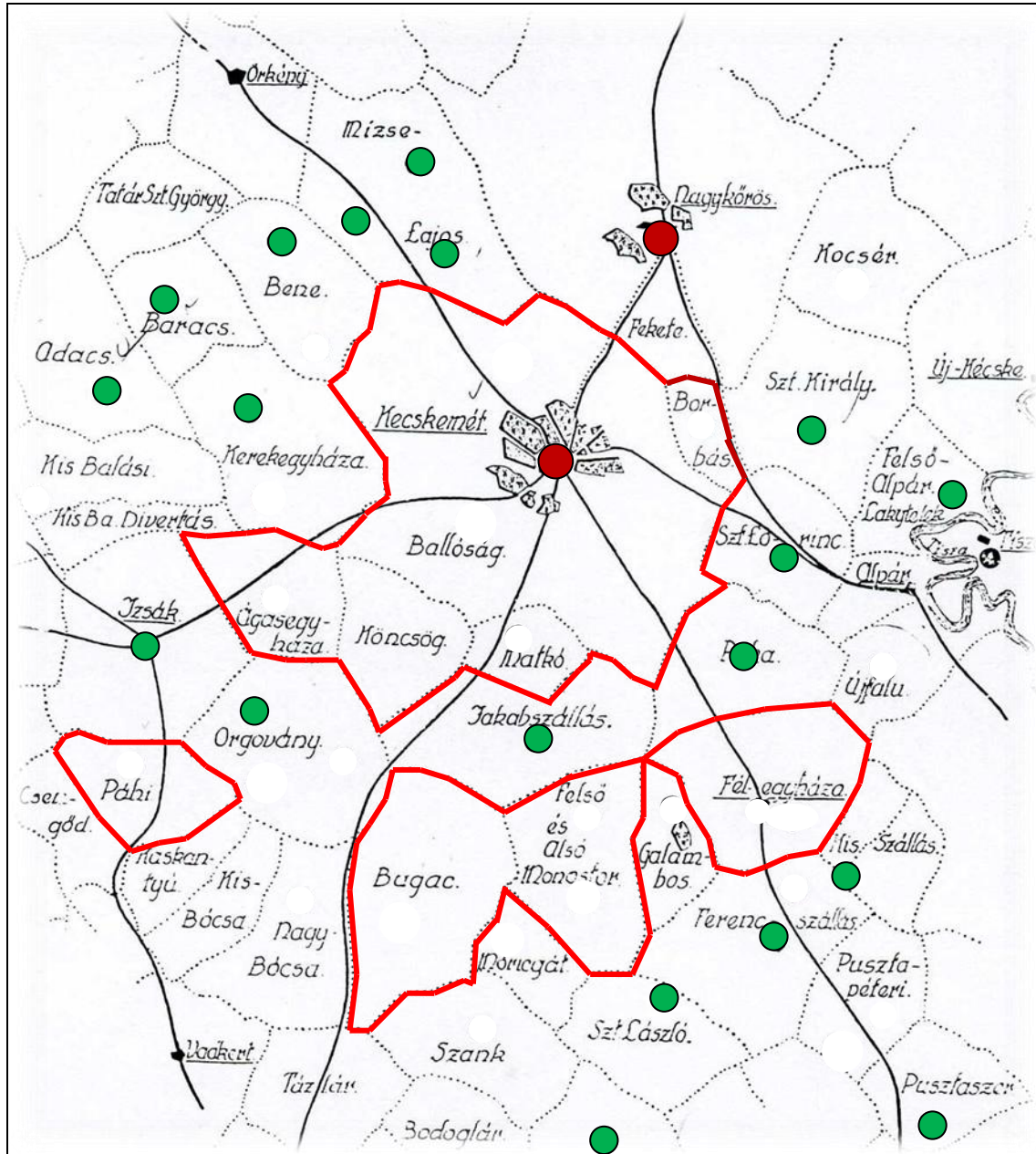


Fig 209 The leased deserted village lands of Kecskemét around the mid-sixteenth century with the inhabited villages recorded in the sixteenth century defters

115

116



Fig 212 The triple border of Lajos, Nagykőrös and Kecskemét as represented in 1793. detail from *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2)



Fig 213 The triple border at the borders of Kecskemét, Lajos and Körös today (<<http://www.petofiturakor.hu/2009/hatarjaras-nagykoros.html>>)



Fig 214 Stone pillar and earth heap along the border between Kecskemét and Lajos
(<http://www.petofiturakor.hu/2009/hatarjaras-nagykoros.html>)



Fig 215 The common boundary of Bugac and Móricgáttya in 1783. Detail from *Mappa Predii Monostor*, 1783, author unknown (Bács-Kiskun Megyei Önkormányzat Levéltára, Kecskemét, XV 1/a 1. Bugac 20)



Fig 216 The triple border of Szentkirály, Borbásszállás and Kőrös with the *via magna* mentioned in 1354, leading towards *Kőrös*, (1), and the Kenyérváróhalom mentioned in the perambulation as *monticuumo wlgo holm* (2), as depicted in 1885.



Fig 217 Photo of the Hármashatár [Triple Border] at Monostor (photo by the author)



Fig 218 Sylva Chokas and Mindszent (identical with Borbásszállás) between Kecskemét and Kőrös as represented in 1740. *Mappa Unitorum Comitatum Pestiensis Pilisiensis et Solthensis Non Minus Districtum Cumanorum Minorum*, cartographer unknown, 1740, (Budapest: National Széchenyi Library of Hungary. TK 1086).



Fig 219 Chederhamca, represented as *Csődöri szőlőhegy* [Csődör vineyards] as represented on the Second Ordnance Survey.



Fig 220 Farmstead near Bugac in the 1930s (Postcard)



Fig 221 Farmsteads on the Second Ordnance Survey at Kecskenét

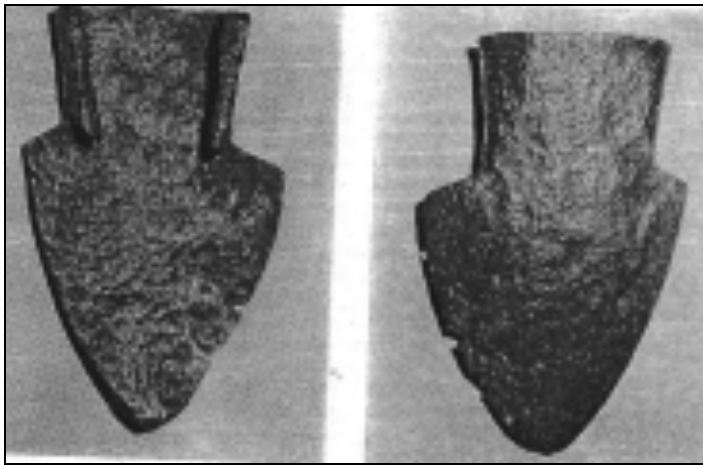


Fig 222 Asymmetrical ploughshare from the environs of Kecskemét (József Katona Museum, after Balassa, *A szántás és az eke*, 273)

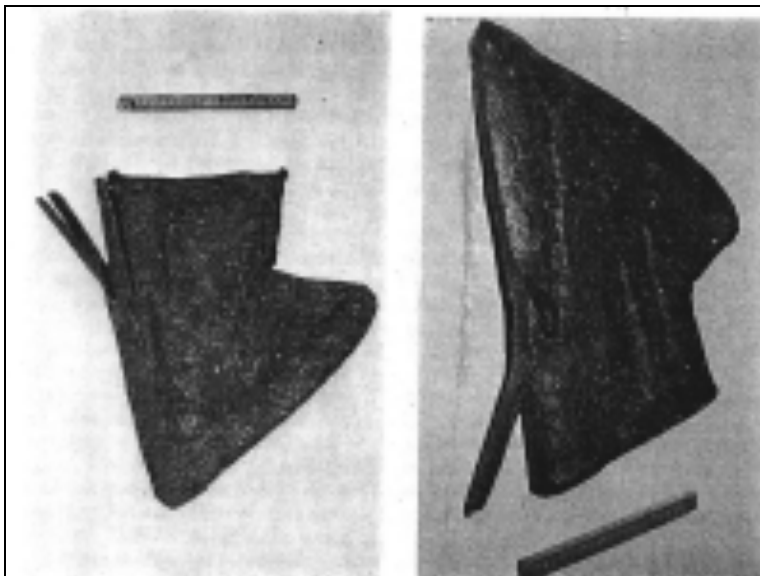


Fig 223 Asymmetrical ploughshare with *Griessäule*-holes from Bugac, late 16th century (József Katona Museum, after Balassa, *A szántás és az eke*, 273)



Fig 224 Arable fields, among the shifting sand dunes south of the Kecskemét, as represented on the First Ordnance Survey



Fig 225 The inner zone of arable fields around Kecskemét in 1770. Detail from the The cadastral map of Kecskemét, cartographer unknown, 1770, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a Kecskemét 0005)



Fig 226 The “islands” of arable fields at near Szabadszállás at Bábony puszta in 1796. Detail from *Mappa Faciem Telluris praecipue ab aggeribus Publicis Dömsödiensibus usque Possessionem Akasztó cum plagis naturaliter depressis ac una Stagnosis tam in Comitatu Pestiensi quam et Districtus Cumaniae Minoris Situatis*, by Antonius Balla, 1793, (Budapest: National Archives of Hungary, S 12 Div XIII No 0584:2)



Fig 227 The church ruin and the ‘island of arable fields around it, on the cadastral map Ágasegyháza from 1834 (Kecskemét: Municipal Archives of Kecskemét)



Fig 228 The church ruin at Szentlőrinc, surrounded by the *Telek* [Plot], which is *plaga falcari solita arabilis* according to the map. Detail from the cadastral map of Szentlőrinc, from 1788. (Kecskemét: Municipal Archives of Kecskemét)



Fig 229 Winter stalls near Debrecen in 1935 (<<http://mek.niif.hu/02100/02115/html/img/1-56.jpg>>)

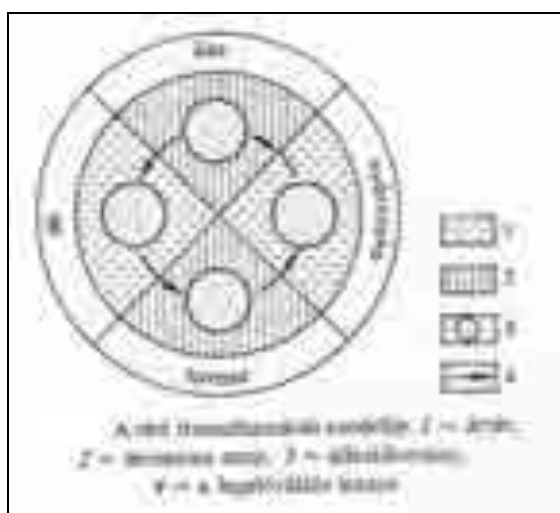


Fig 230 The model of transhumance in the eighteenth-nineteenth century
 1: floodplain 2: non-flooded elevations 3: stock of animals 4: the direction of transhumance



Fig 231 The extensive pasture (*Pascuum*) around Kecskemét as represented in 1770; The cadastral map of Kecskemét, cartographer unknown, 1770, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a Kecskemét 0005)



Fig 232 The *Templom széke*, *Len áztató* and the *Sombos rét*, detail from *Mappa Predii Monostor*, 1783, author unknown, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20)



Fig 233 The *Templom széke*, *Len áztató* and the *Sombos rét*, detail from *Mappa Predii Monostor*, author unknown, 1783, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1. Bugac 20)



Fig 234 The *Közlegelő* and the *Telelő* at Bugac in 1885 Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The map of Kecskemét], by Gusztáv Rihocsek, 1885, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483)



Fig 235 The Talfája Wood on the First Ordnance Survey



Fig 236 The Nyír Wood around 1830. Detail from the map *Kecskemét külterületi felmérése* [The survey of the boundary of Kecskemét], author unknown, 1830, Municipal Archives of Kecskemét, XV. 1/a Kecskemét 359



Fig 237 The relicts of the oak forest at the boundary of Kecskemét, Cegléd and Nagykőrös, as represented in 1793. Detail from *Mappa specialissima regionibus coeli juxta recentissimas observ: astronomicas accomodata I. Regni Hungariae Comitatum Pest Pilis et Solth* by Antonius Balla, 1793, (Budapest: National Archives of Hungary, S12 Div 10 No 76:1-2)

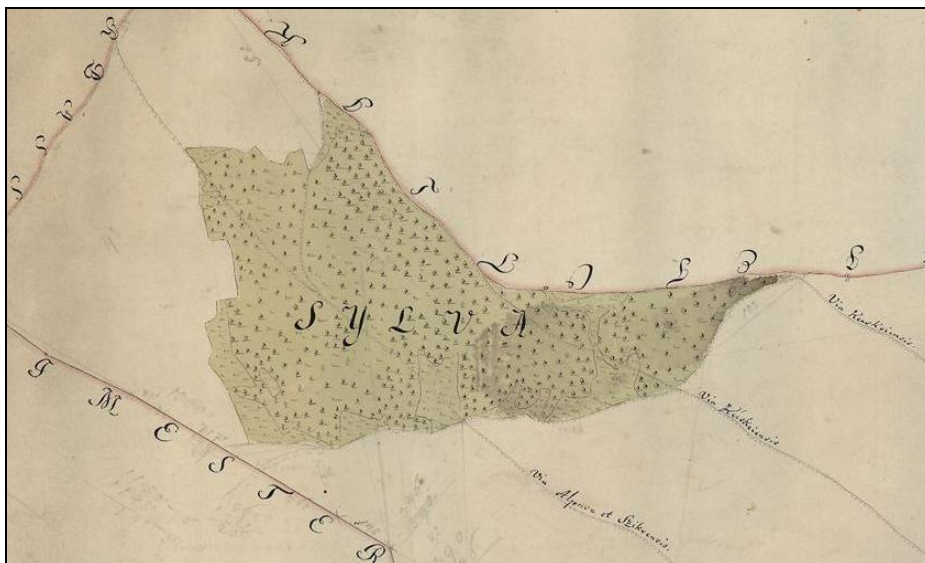


Fig 238 The Szentkirály wood as represented in 1787. Detail from *Planum Exhibens Partem Vayanam Sz.Király*, 1787, cartographer unknown, (Kecskemét: Municipal Archives of Kecskemét, XV. 1/a. 1. Szentkirály 13.)



Fig 239 The Szentkirály wood in 1885 Detail from *Kecskemét szabad királyi város területének átnézeti térképe* [The map of Kecskemét], by Gusztáv Rihocsek, 1885, (Kecskemét: Municipal Archives of Kecskemét, XV 1/a 1 483)



Fig 240 The place of the Szentkirály Wood on a recent aerial photo- the once extension of the wood is clearly visible as borderlines of cultivation fields



Fig 241 The Szentlőrinc Wood in 1788. Detail from the cadastral map of Szentlőrinc, 1788, author unknown, (Kecskemét: Municipal Archives of Kecskemét)

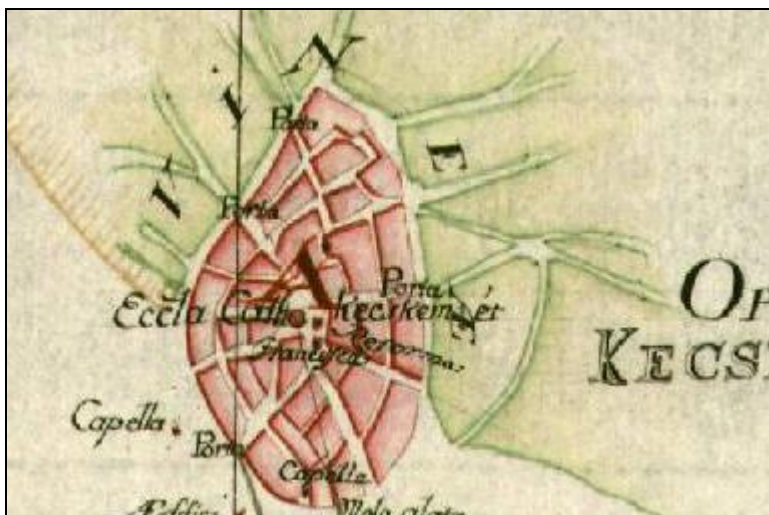


Fig 242 The vineyards as represented around 1788. Detail from the *Accurata delineatio situm seu cubitum viae postalis, ac una commercialis quae inter oppida Kecskeméth et Félégyháza intercedit una cum punctis illis, in quibus in quaestione existentia loca physica nimirum verum situantur repraesentans*, by Antonius Balla, c.1788, (Budapest: National Archives of Hungary, S 12 Div XVIII No 0023)



Fig 243 The vineyards of Kecskemét as represented on the First Ordnance Survey