

GENIUS LOCI

LASZLOVSZKY 60

edited by
Dóra Mérai
and

Ágnes Drosztmér, Kyra Lyublyanovics,
Judith Rasson, Zsuzsanna Papp Reed,
András Vadas, Csilla Zatykó



ARCHAEOLINGUA

Genius loci **Laszlovszky 60**

edited by

Dóra Mérai

and

**Ágnes Drosztmér, Kyra Lyublyanovics,
Judith Rasson, Zsuzsanna Papp Reed,
András Vadas, Csilla Zatykó**



Budapest 2018

The publication of this volume was generously funded by



ISBN 978-615-5766-19-0

© by the Authors and Archaeolingua Foundation

2018

ARCHAEOLOGUA ALAPÍTVÁNY

H-1067 Budapest, Teréz krt. 13

www.archaeolingua.hu

Copy editing and language editing: the editors

Layout: Zsanett Kállai

Map: Viktor Lagutov, Zsuzsa Eszter Pető, Mária Vargha, István Gergő Farkas

Front cover design: Eszter Bence-Molnár

Table of contents

Tabula gratulatoria	v
Kiadói előszó	vi
Publisher's Preface	viii
Köszöntő	x
Salutation	xi

Boundaries, Frontier Zones / Határvonalak, határvidékek

ALEKS PLUSKOWSKI – ALEX BROWN – SEWERYN SZCZEPANSKI – ROWENA BANERJEA – DANIEL MAKOWIECKI What Does a Frontier Look Like? The Biocultural Dynamics of the Lower Vistula Borderland in the Middle Ages	2
STEPHEN POW The Mongol Empire's Northern Border: Re-evaluating the Surface Area of the Mongol Empire	8
IAN WOOD Two Roman Frontiers and Their Sub-Roman Afterlife	14

Crossing Borders / Határokon át

SZAKÁCS BÉLA ZSOLT Gyulafirátót, avagy a rendi építészeti hagyományok átjárhatósága	19
CRISTOPHER MIELKE A Queen's Crusading Connections: Yolanda of Courtenay, the Fifth Crusade, and the Military Orders	25
BÁRÁNY ATTILA Angol keresztés a magyar végeken: Robert de Champlayn	28
CRISTIAN GAȘPAR Trespassing Pigs, Sons of Whores, and Randy Dogs: Marginalia on a Medieval Document from Caransebeș/Karánsebes	32
VADAS ANDRÁS A kecskeméti marhahajtók megpróbáltatásai és egy végvár jóllakott őrsége	38
LÁSZLÓ KONTLER Borders and Crossings: A Jesuit Scientist in the Whirlwind of Enlightened Reform	41
PAUKOVICS GERGŐ Hajszja az örök fiatalságért. Dr. Voronoff és a dübörgő 20-as évek	45
PINKE ZSOLT – STEPHEN POW A Gangesz-deltából a globális porondra: történeti ökológiai szempontok a kolera kórokozó (<i>Vibrio cholerae</i>) elterjedési területének átalakulásához	50
MARCELL SEBŐK Tangible Cultural Heritage: The Early History of Blue Jeans	55

Inhabiting the Landscape / Élet a tájban

SÓFALVI ANDRÁS	
A Barcaság határai és 13. század eleji településképe a Német Lovagrend adományleveleiben	60
NIKOLINA ANTONIĆ	
The Hospitallers' Estate of Čičan and its Neighbors: Spatial Analysis Yields New Information	64
ÜNIGE BENCZE	
The Abbey of Meszes: New Insights on the Site Location	68
MÓGÁNÉ ARADI CSILLA – MOLNÁR ISTVÁN	
Kísérlet a bárdudvarnok-szentbenedeki premontrei prépostság környezeti rekonstrukciójára	72
BEATRIX ROMHÁNYI	
Monasteries along the Danube	77
PUSZTAI TAMÁS – P. FISCHL KLÁRA	
A dél-borsodi síkság bronzkori és középkori településstruktúrájának összehasonlítása	82
VIZI MÁRTA	
Komplex régészeti kutatás egy egykori dél-dunántúli mezőváros területén	89
BATIZI ZOLTÁN	
Fagyosasszony és Kammerhof	95
PÁLÓCZI HORVÁTH ANDRÁS	
A középkori Kenderes településszerkezete	99
SZŐCS PÉTER LEVENTE	
Adatok Nagybánya és vidéke középkori egyházi topográfiájához	103
ZATYKÓ CSILLA	
Eltűnt berzencei malmok	108
SZABÓ PÉTER	
Középkori cseh erdőgazdálkodás a choustníki uradalom erdőszámadásainak tükrében	113
ANDREA KISS	
Before and After the Great Heat and Drought of 1540: Multiannual Trends of Grape and Grain Harvest Dates in the Vienna Hospital Accounts	117
LÁSZLÓ BARTOSIEWICZ	
“Kleine Fische, gute Fische” – But Sturgeon is Great	121
LYUBLJANOVICS KYRA	
Vad háziállat, házi vadállat: Számi rénszarvastartás a középkori és kora újkori Norvégiában	126
JUDITH RASSON	
Mountains in the Lifeways and History of Northern Macedonia	138
JEREMY MIKECZ	
Crossing the Abyss: The Apurímac Canyon at the Time of the Spanish Invasion of Peru (1533)	142

Busy Places / Nyüzsgő terek

PETROVICS ISTVÁN	
Újabb adatok Pécs késő középkori történetéhez	147
URBÁN MÁTÉ	
Lokális búcsújáró helyek a késő középkori Nyugat-Dunántúlon	151
BALÁZS NAGY	
The Marketplace of Csütörtök – A Local Market in Fourteenth-Century Hungary	156
KATALIN SZENDE	
The Sopron Fish Market	159
GERHARD JARITZ	
The Craftsman's Voice and Words in Late Medieval Austrian Urban Space	165

TABLE OF CONTENTS

ANA MARIA GRUIA Healthcare in Cluj in the Sixteenth Century: Overlapping Professions	168
ANA MARINKOVIĆ John Capistran's Mantle and the Early Propaganda of Franciscan Observant Cults in Dubrovnik	171
SABINA MADGEARU Ceremonial Space in Front of Medieval Buda: An Illuminated Fifteenth-Century French Vision	175
VÉGH ANDRÁS Óbuda látképeken	177

Layers of the Past / A múlt rétegei

KODOLÁNYI JUDIT Templomok és temetők a visegrádi Sibrik-dombon	181
ROSTA SZABOLCS Egy új lehetőség kapujában – tatárjárás kori védművek a Kiskunságban	186
BOTÁR ISTVÁN Árpád-kori edényégető kemence Csíksomlyón	193
PETAR PARVANOV Fire and Stone: Placing Flints in Graves in Late Medieval Kaliakra	197
GYARMATI JÁNOS Kumpi Wasi. Textilműhely egy inka tartományi központban	201
ZSUZSANNA PAPP REED Post It: Notes from Thirteenth-Century St Albans	207
VALERY REES The Salt of Genius: Marsilio Ficino on Food, Spices, and Nutrition	213
ROSSINA KOSTOVA The Mother of God Monastery near Varna, Bulgaria: More about Missionary Monasteries in Bulgaria in the Ninth and Tenth Centuries	217
DANIEL ZIEMANN The Imperial Abbey of Corvey in the Ninth and Tenth Century: At the Crossroads of Power	221
VIRÁGOS GÁBOR Kartal vagy Cyko? Kísérlet egy középkori nemesi család történetének rekonstruálására	226
TÓTH BOGLÁRKA – BOTÁR ISTVÁN A sepsikilyéni unitárius templom tetőszerkezeteinek kormeghatározása	244
RÁCZ MIKLÓS Egy tiszazugi újkori négyosztatú ház – Dokumentálás és építéstörténet	248

Objects beneath Our Feet / Tárgyak a föld alól

LANGÓ PÉTER A Tiszakeszi-Szódadombon talált kora Árpád-kori kereszt	254
RÁCZ TIBOR – NAGY BALÁZS Tatárjárás kori kincslelet Jászkarajenőről	258
SZENDE LÁSZLÓ Lehetett-e hadijelvény a csajági kereszt?	267
NÓRA UJHELYI Thoughts about Medieval Book Fittings from the Castle of Visegrád	270
MÁRIA VARGHA – THOMAS KÜHTREIBER Treasures of the “Lower Ten Thousand”? Hoards of Iron Objects	273

TABLE OF CONTENTS

K. NÉMETH ANDRÁS „Sarlóját ez okért bős fegyverré köszörülte” Késő középkori kiegyenesített sarló Kospa falu helyéről	280
MAXIM MORDOVIN A Collection of Fifteenth- and Sixteenth-Century Cloth Seals from Szolnok	285
TÜNDE KOMORI Ottomans in Pest in the Light of “Luxury” Ceramics: Four Cups from Kígyó Street	289
WICKER ERIKA A 17. századi rácszentpéteri kincslelet	294

Marking the Place / Helyek és jelek

CSERNUS SÁNDOR Keresztes családtörténet és kőbe vésett emlékezet	300
LŐVEI PÁL A pilisszántói keresztes kő legendája	305
MÉRAI DÓRA Sügérek a Nyárádméntén: Sigér Mátyás síremléke leporolva	311
VESZPRÉMY LÁSZLÓ A bambergi lovas szobra és Szent István	316
TAKÁCS MIKLÓS A pétervárad-tekiai reneszánsz kőfaragvány	321
ANNELI RANDLA What and Whom Should We Remember? The Case of the Teutonic Order’s Church and Castle in Pöide, Livonia	325

Heritage Sites, Sacred Places / Örökségi helyszínek, szent helyek

ALEKSANDAR PANTIĆ The Ambiguity of Heritage Interpretation: A Late Roman Tomb in Brestovik, Serbia	330
GYÖRGY ENDRE SZÓNYI Rocamadour: Monastic Center, Pilgrimage Place, Art Historical Interest, World Heritage Site	335
KATEŘINA HORNÍČKOVÁ A Penitent Judas Iscariot: An Exemplum of Christian Morals on the Eve of Hussitism?	339
JAMES PLUMTREE Buddha, Lenin, and the Prophet Muhammad Approaching the Landscape and Cultural Heritage of Issyk-Ata	343
ROBERT SHARP The Thames Estuary: The Cultural Heritage and Memory of the Thames Estuary at Southend-on-Sea	349
ESZTER SPÁT Constructing Religio-Ritual Heritage: The New Shrine of Shekhsê Batê in Khetar, Northern Iraq	353
ZSUZSANNA RENNER Delhi, Old and New: Changing Cityscapes and the Cultural Heritage of India’s Capital City	357
FELD ISTVÁN Pseudovár vagy történeti rekonstrukció?	364
ILON GÁBOR A velemi régészeti témaparkról	371
WOLLÁK KATALIN Örökség alapú fejlesztés Kölkeden	374

TABLE OF CONTENTS

Places of Memory / Az emlékezet helyei

JÁNOS BAK	
Nádor 20 Capriccio	380
SZENTPÉTERI JÓZSEF	
Pilistól Tételig. Elektronikus levélféle a 60 esztendőös Laszlovszky Józsefnek	382
RICHARD HODGES	
Scarlino in the 1980s, Forty Years On	386
KLANICZAY GÁBOR	
Egy hozzászólás Kremsben	390

“Kleine Fische, gute Fische” – But Sturgeon is Great

LÁSZLÓ BARTOSIEWICZ*

As important and delicious the humble orfe, ide or tench may be, their archaeological study is impossible without water-sieving, essential in recovering their minute bones. Species in the sturgeon family (*Acipenseridae*) represent a remarkable exception as they tend to be large. Great sturgeon may attain weights over 300 kilograms. Many of their bones are thus as large as those of sheep or pigs, easily collected by hand.

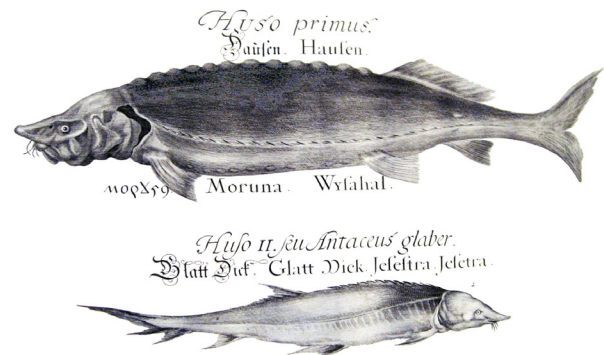
A decade ago we proposed “cultural taphonomy” to be considered in the multidisciplinary study of human impact on acipenserid fish.¹ Taphonomy is the study of factors influencing the formation of excavated bone assemblages. The recognition that medium-driven taphonomic loss of information stands in the way of integrating various types of data was further tested using the example of animal iconography.² Formal concepts in taphonomy have recently been applied to medieval sources.³ Visibility is an important taphonomic factor. Sturgeon is conspicuous in archaeological as well as written sources. In cookbooks it is often referred to as “Royal Fish”.⁴

Most acipenserids live in the sea migrating upstream to oxygen-rich alluvial spawning grounds. Migrations took place in the spring and fall.⁵ Fish moved upstream still in good condition. Females were also full of eggs, caviar being a highly appreciated commodity in both accounting records and cookbooks.⁶

Great sturgeon (*Huso huso* Brandt, 1869) became extinct in the Danube due to habitat loss, overfishing and the damming of the Iron Gates Gorge of the Danube (1971 and 1984). The last, 181-kilogram specimen was caught at Paks (Hungary) in 1987 (Fig. 1). In addition to great sturgeon several other species were caught. Their remains are, however, difficult to distinguish morpholog-



► Fig. 1. The last great sturgeon landed in Hungary in 1987 (photo: István Takács).



► Fig. 2. 1726 pictures of great sturgeon (“*Huso primus*”) and ship sturgeon (“*Huso II*”) in the book by Luigi Fernando Marsigli (Photo: L. Bartosiewicz)

ically. References to ‘Hausen’ and ‘Dyck’ (Fig. 2) in various sources⁷ indicate that the smaller ship sturgeon (*Acipenser nudiventris* Lovetzky, 1828) or Russian sturgeon (*Acipenser gueldenstaedtii* Brandt & Ratzeburg, 1833) were also in the focus of interest.

Self-representation – social selection

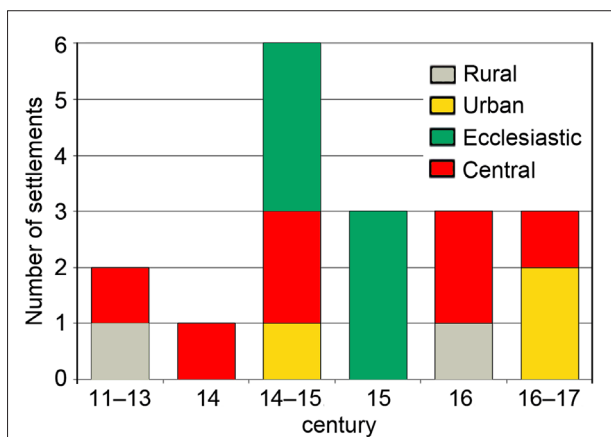
Finds of sturgeon usually occur at high-status settlements in Hungary. A 1432 document on how two sturgeons were confiscated from serfs of the Eger bishop’s chapter,⁸ is consistent with

* Osteoarchaeological Research Laboratory, Stockholm University

the rare occurrence of sturgeon among the finds from rural sites (Fig. 3). This is a sign of marked cultural selection not only among finds but in the types of written record as well.

Medieval sturgeons were most frequently found in the Danube Bend Gorge, a special section of the river's course between Esztergom (upstream) and Buda, the medieval capital.⁹ Only four "inland" sites (Nagykanizsa, Sárszentlőrinc, Szendrő, and Zirc)¹⁰ yielded finds at some distance from sizeable rivers.

Bones from elite consumption do not directly represent fishing. Moreover, many elite settlements have been paid distinguished attention by archaeologists. Modern Age landings of record size sturgeon in Hungary, on the other hand, show even distribution along the Danube, with no concentrations around the aforementioned high-status medieval sites.¹¹



► Fig. 3. The diachronic distribution of medieval settlement types that yielded sturgeon remains in Hungary (graphics: L. Bartosiewicz)

Movement

Transport is thus another important factor in traditional taphonomy. Animals may be butchered off-site (e.g. on river banks immediately after landing),¹² with remains left beyond the reach of excavating archaeologists. Bones attached to meat may make it all the way to the table. Trophies, amulets or accessories¹³ (not typical uses of sturgeons) may travel long distances from the kill-site.

According to the documents of the German Butchers' Guild of Buda, in 1519 the royal capital bought sturgeons and other acipenserids from

fishermen in Esztergom, Nagymaros, Megyer, Óbuda and Szentlászló.¹⁴ Ladislaus Suntheim mentions sturgeons caught upstream in Komárom, transported to Vienna already at the turn of the fifteenth-sixteenth century.¹⁵ In the mid-eighteenth century, Mátyás Bél described how large, live sturgeons were towed upstream by boat to markets in Buda and Vienna.¹⁶ Trading in sturgeon (live, as well as meat, fresh or salted),¹⁷ is thus another filter to reckon with in cultural taphonomy.

In the early fifteenth century, the bishop of Passau visited sturgeon fishing grounds on the estate of the Esztergom archbishop.¹⁸ However, it has not been reported how far this location was from Esztergom itself. Several villages were major fishing posts in the Vah valley, 60 kilometers northwest of the archbishop's seat in Esztergom.¹⁹ Sturgeon bones occurred but sporadically in the archaeozoological material from the archbishop's residence itself (Fig. 4) and there is no reference to the purchase of these valuable fish in his 1489 accounting. By both sources, sturgeons may look insignificant. On the other hand, *usoni venduti* (sturgeons sold) from the catch sites of Guta and Naszvad along the Vah²⁰ were a major source of the archbishop's revenue. Sturgeons from the Middle Danube valley were traded not only to Buda and Vienna but also to Prague, Munich, Kraków and even Paris, possibly contributing to a decrease in sturgeon catch in the seventeenth-eighteenth century.²¹



► Fig. 4. Hacking marks on the first pectoral fin ray of a medieval great sturgeon from Esztergom. Scale: 30 mm (photo: L. Bartosiewicz)

Regulations and investment – economic selection

Archaeozoological evidence of sturgeon fishing near Komárom is available from as early as the Roman Period.²² According to a legal document from 1206 villages along the Vah fiercely competed for sturgeon fishing rights in the area.²³ During the fifteenth century a declining number of estates in the Vah valley, famous for its fisheries,²⁴ belonged to the Esztergom archbishop at the time.²⁵ In 1518 the city of Komárom at the confluence of the Danube and Vah was granted royal sturgeon fishing rights.²⁶ The monopoly of Komárom fisherfolk survived in the eighteenth century: they let sturgeon fishing rights from as far as the Tisza river between Tiszacsege and Tiszafüred,²⁷ 250 kilometers away in eastern Hungary.

Sturgeons were trapped where exposed in shallow waters and narrow tributaries or where they could be herded into artificial weirs.²⁸ Sturgeon fishing required more investment in infrastructure and organization than ordinary river fisheries, comparable only to the large-scale construction of fish ponds.²⁹ The construction of weirs required material and labor, all accumulated in the final value of the catch, even if not always accounted for in pecunial terms. In other words, sturgeon fishing required both capital and/or power. Serfs of entire villages were ordered to construct weirs under the supervision of the *magister clausurae*, using massive timber, sometimes transported from considerable distances.³⁰ Nicolaus Olahus describes the full closure of the Danube with a sturgeon trap, a move deemed unacceptable in a 1528 trial between the competing fishermen’s guilds of Vác and Buda.³¹

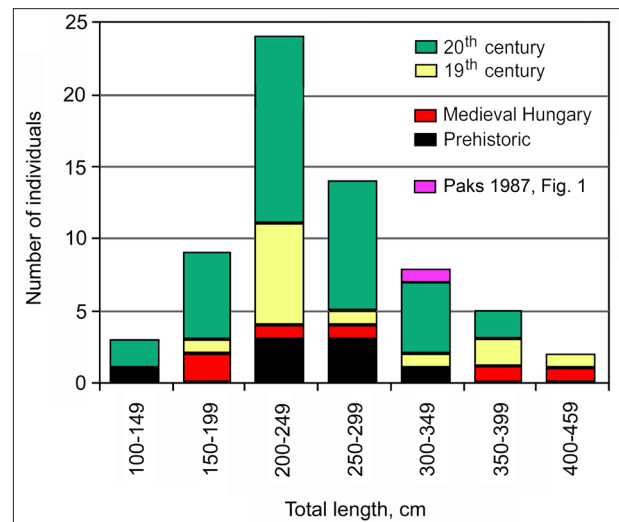
A matter of size?

Appreciation of large sturgeons is shown in a 1329 tax roll: great sturgeon was recorded there worth 2 denarii (corresponding to the dues of a horse, ox or cow), while other acipenserids were taxed only 1 denarius.³² The extinction of great sturgeon in the Danube was preceded by at least 150 years of body weight decline in record specimens. A small but consistent long-term decrease of 1.84 kilograms in record sturgeon weights since 1850 was proven to be statistically significant.³³

Size represents a common denominator between archaeological finds and documents. Well-preserved first pectoral fin rays have been most frequently used in osteometric reconstructions.³⁴ The length of individuals can be calculated from the width of this bone’s proximal end.³⁵ The archbishop’s palace in Esztergom yielded a fifteenth-century fin ray from a 3.5-meter long individual. Butchering such large fish took heavy tools such as cleavers and hatchets (cf. Fig. 4).

Archaeological length estimates³⁶ were plotted with Modern Age records³⁷ in Fig. 5.

The sizes of the largest archaeological specimens correspond to historical records, the only difference being that archaeological assemblages sometimes include the remains of smaller individuals.



► Fig. 5. The size distributions of sturgeon caught in the Danube by historical records (nineteenth-twentieth century) and archaeological estimations (prehistoric/medieval Hungary; Graphics: L. Bartosiewicz)

Conclusions

The time has come to increasingly integrate zoological studies with research in humanities.³⁸ Awareness of taphonomic similarities between various sources helps such integration efforts as follows:

- *Selectivity* is one of the most important features of the taphonomic process. Some information never even enters the archaeological record, while some survive better than others over time. Sturgeon represents a fortunate

case: there has always been interest in catching these fish, and they attracted sufficient attention by chroniclers. Their bones also made it to the sites of consumption.

- *Preservation and recovery* form another set of issues. While large fish bones keep better in the soil and are easier to find, the preservation of parchment or paper-based documents is less consistent and tends to dramatically deteriorate as we go back in time. It is, however, the high status of these animals that guaranteed their entry into likewise high-status books which stand a better chance of survival than mundane records.

The taphonomic process is determined by the dynamic interaction between the materialities of the information that is being deposited and the long-term characteristics of the context into which it becomes embedded. The example of sturgeon illustrates this in the broadest sense. Awareness of the taphonomic concepts illustrated here offers critical insight into the compatibility of information in various sources.

No matter how important and tasty the humble orfe, ide or tench are, their archaeological remains are near-invisible or at best marginal in the written record. Their study will require a taphonomically informed research strategy.

Acknowledgements

This study contains research result from project NKFI K-112318 “An Environmental History of the Carpathian Basin in the Middle Ages.” Personal communications by Krisztina Orosz were of great help in fine-tuning interpretation. Access to Marsigli’s book was granted by Dr. Andrea Kreutzer in the library of the Museum of Military History, Budapest.

Notes

- ¹ László Bartosiewicz and Clive Bonsall, “Complementary Taphonomies: Medieval Sturgeons from Hungary,” in *Archéologie du Poisson. 30 ans d’archéo-ichtyologie au CNRS*, ed. Philippe Béarez, Sandrine Grouard and Benoit Clavel (Antibes: Éditions APDCA, 2008), 41.
- ² László Bartosiewicz, “‘Stone Dead’: Dogs in a Medieval Sacral Space,” in *The Ritual Killing and Burial of Animals*, ed. Alexander Pluskowski (Oxford: Oxbow, 2011), 222.
- ³ László Bartosiewicz, “Like a Headless Chicken: Meaning, Medium and Context in Medieval Urban Taphonomy,”

- in *Animaltown: Beasts in Medieval Urban Space*, British Archaeological Reports 2858, ed. Alice Mathea Choyke and Gerhard Jaritz (Oxford: BAR, 2017) 20, 24, Figs. 2–3.
- ⁴ Marcus Rumpolt, *Ein new Kochbuch* (Frankfurt am Mayn: Verlag Sigmund Feyerabendt, 1581); István Galgóczi, *Szakácsi Tudoman* [The cook’s art] (Manuscript, 1622).
 - ⁵ Mátyás Bél, *Tractatus de rustica Hungarorum*. Az 1764-es kiadás magyar fordítása [Hungarian translation of the 1764 edition] by Antal András Deák (Budapest: Vízügyi Történelmi Füzetek, 1984), 25.
 - ⁶ András Kubinyi, “Főúri étrend tábori körülmények között 1521-ben” [Diet of the high nobility in military camps in 1521] in *Tanulmányok Szakály Ferenc emlékére*, ed. Pál Fodor, Géza Pálffy, and István György Tóth (Budapest: MTA TKI, 2002), 249; Ottó Herman, *A magyar halászat könyve* [The book of Hungarian fishery] (Budapest: Királyi Magyar Természettudományi Társulat, 1884), 25.
 - ⁷ E.g. Luigi Fernando Marsigli, *Danubius Pannonico-Mysiticus*, vol. 4 (Amsterdam: Uytwerf & Changuion, 1726).
 - ⁸ Péter Tóth and András Kubinyi, *Miskolc története (A kezdetektől 1526-ig)* [The history of Miskolc (from the beginnings to 1526)], vol. 1 (Miskolc: Borsod-Abaúj-Zemplén Megyei Levéltár–Herman Ottó Múzeum, 1996), 320–321.
 - ⁹ Bartosiewicz and Bonsall, “Complementary,” 40, Fig. 7.
 - ¹⁰ Bartosiewicz and Bonsall, “Complementary,” 39, Fig. 6; Beáta Tugya, “Nagykanizsa–Miklósfa–Romlottvár (Botszentgyörgy vára) 16. századi állatcsont leletei” [Sixteenth-century animal bone finds from Nagykanizsa–Miklósfa–Romlottvár (Botszentgyörgy vára)], *Zalai Múzeum* 23 (2017): 189.
 - ¹¹ Antal Khin, “A magyar vizák története” [The history of Hungarian sturgeon], *Mezőgazdasági Múzeum Füzetei* 2 (1957): 1–36.
 - ¹² Bartosiewicz and Bonsall, “Complementary,” 43, Fig. 8.
 - ¹³ László Bartosiewicz, “Every Skin Teeth Aint a Laugh: Medieval Leopard Find from Hungary,” *Hungarian Archaeology*, Autumn (2015), accessed: September 2 2018, http://files.archaeolingua.hu/20150/eng_Bartosiewicz_150.pdf.
 - ¹⁴ István Kenyeres, Enikő Spekner, and Katalin Szende, “A budai német mészárosok középkori céhkönyve (1496) 1500–1529 (1538, 1695)” [The medieval book of the butchers’ guild in Buda], in *A budai mészárosok középkori céhkönyve és kiváltságlevelei*, ed. István Kenyeres (Budapest: Budapest Főváros Levéltára, 2008), 186.
 - ¹⁵ Franz Pfeiffer, “Das Donauthal von Ladislaus Suntheim,” *Wien: Jahrbuch für vaterländische Geschichte* 1 (1861): 296.
 - ¹⁶ Bél, *Tractatus*, 41.
 - ¹⁷ Borbála Benda, *Étkezési szokások a 17. századi főúri udvarokban Magyarországon* [Eating customs in the court of seventeenth-century aristocrats in Hungary] (Budapest: PhD thesis, Eötvös Loránd University, 2005).
 - ¹⁸ László Zolnay, *Kincses Magyarország* [Treasures of Hungary] (Budapest: Magvető Kiadó, 1977), 96–121.
 - ¹⁹ Albert Nyáry, “A modenai Hyppolit kódexek” [The Hyppolit codices of Modena], *Századok* (1870): 355–370.
 - ²⁰ Nyáry, “A modenai,” 365; Bartosiewicz and Bonsall, “Complementary,” 140.
 - ²¹ Eugene Balon, “Einfluß des Fischfangs auf die Fischgemeinschaften der Donau,” *Archiv für Hydrobiologie Suppl.* 34, No. 3 (1968): 245.
 - ²² László Bartosiewicz, “Animal remains from the fort,” in *The Roman Fort at Ács-Vaspuszta (Hungary) on the Danubian Limes*, ed. Dénes Gabler (Oxford: BAR, 1989), 618.
 - ²³ Veronika Novák, “Mátyusföldi települések az okleveles források tükrében” [Settlements of Mátyusföld in the

- archival sources], in *Mátyusföld II. Egy régió története a XI. századtól 1945-ig*, ed. László Bukovszky (Komárom–Dunaszerdahely: Liliium Aurum Könyvkiadó, 2005), 54.
- ²⁴ Dezső Csánki, *Magyarország történeti földrajza a Hunyadiak korában* [Historical geography of Hungary during the Hunyadi Dynasty], vol. 3 (Budapest: Magyar Tudományos Akadémia, 1897), 38.
- ²⁵ Erik Fügedi, “Az esztergomi érsekség gazdálkodása a 15. század végén, I.” [Husbanding of the Esztergom archdiocese at the end of the fifteenth century], *Századok* 94 (1960): 82–124.
- ²⁶ Ottó Herman, *Halászat és pásztorélet* [Fishing and pastoralism] (Budapest: Gondolat, 1980), 17.
- ²⁷ János Bencsik, “Egy jobbágyközség gazdasági, társadalmi élete az úrbérrendezéstől a jobbágyfelszabadításig” [The economic and social life of a serfs’ village between the urbarial regulations to serf liberation], *Acta Universitatis de Ludovico Kossuth Nominatae Series Historica* 10 (1970): 73.
- ²⁸ László Bartosiewicz, Clive Bonsall, and Vasile Şişu, “Sturgeon Fishing along the Middle and Lower Danube,” in *The Iron Gates in Prehistory*, ed. Clive Bonsall, Vasile Boroneanţ, and Ivana Radovanović (Oxford: BAR, 2008), 50–51, Fig. 12.
- ²⁹ Christopher M. Woolgar, *The Great Household in Late Medieval England* (New Haven and London: Yale University Press, 1999), 120.
- ³⁰ Bencsik “Egy jobbágyközség,” 54.
- ³¹ Miklós Oláh [Nicolaus Olahus], *Hungária–Athila*, trans. Péter Kulcsár and Béla Németh (Budapest: Osiris, 2000).
- ³² Tóth and Kubinyi, “Miskolc,” 320.
- ³³ László Bartosiewicz and István Takács, “Osteomorphological Studies on the Great Sturgeon (*Huso huso* Brandt),” *Archaeofauna* 6 (1997): 15, Fig. 13.
- ³⁴ Natalie Desse-Berset, “Sturgeons of the Rhône in Arles (6th–2nd century BC),” *Koninklijk Museum voor Midden-Afrika, Annalen, Zoologische Wetenschappen* 274 (1994): 87.
- ³⁵ Bartosiewicz and Takács, “Osteomorphological,” 12, Fig. 2.
- ³⁶ Bartosiewicz et al., “Sturgeon,” 40–41, Table 1.
- ³⁷ Khin, “A magyar,” 12–24.
- ³⁸ Harriet Ritvo, “On the Animal Turn,” *Daedalus* 136, No. 4 (2007): 121.