The Cultural Role of Chess in Medieval and Modern Times 50<sup>th</sup> Anniversary Jubilee of the Sandomierz Chess Discovery

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# The Cultural Role of Chess in Medieval and Modern Times

# 50<sup>th</sup> Anniversary Jubilee of the Sandomierz Chess Discovery

edited by Agnieszka Stempin



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Translations

Ирина Боровикова, Krystyna Kamyszek-Janiak, Magdalena Kardys, Monika Marcinkowska, Piotr Moskała, Wiesława Stempin, Zofia Tabor, Анастасия Владимировна, Zofia Ziółkowska

Accompanying photos separating papers Kateriny Zisopulu-Bleja

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## Natalia Khamaiko

# Gaming pieces from recent excavations of the Kyiv Podil

Several gaming pieces have been found during last years in archaeological excavations at the Podil of ancient Kyiv. They belong to different games: chess, backgammon, hnefatafl. The finds were discovered in the trade and craft manors date back to the 12<sup>th</sup> and perhaps 13<sup>th</sup> centuries. One of them was made of stone, three of antler and another three of walrus tusk. That is not ordinary for Kyiv, where usually gaming pieces were made of antler. Probably that was a reflection of trade dealings of ancient Kyiv Podil.

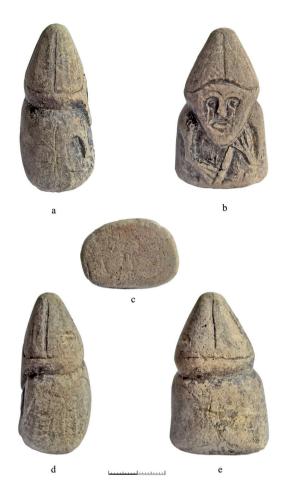
The Podil district (Lower Town) of Kyiv was an important part of the ancient capital of Old Rus'. 50 years of archaeological excavations there have revealed traces of a large urban settlement, which was founded in the late 9<sup>th</sup> century and prospered until the Mongol-Tatar invasion. Podil was the focus for the craft and trade activity that provided the economic basis of the fast developing city (Tolochko 1972: 129-147; Hupalo and Tolochko 1975: 40-79; Hupalo 1976; Tolochko 1981: 265-378; Sahaydak 1991; Sahaydak 2005).

Recent excavations (2000-2011) in Podil by the Center for the Archaeology of Kyiv (under the direction of M. Sahaydak) discovered several gaming pieces, dating to the 12<sup>th</sup> and perhaps the early 13<sup>th</sup> centuries. They comprise a mixture of some well-known types, recognizable from previous excavations in Kyiv, and some types not previously recovered.

The stone chessman (fig. 1) was found in 2000 at 3/7, Mezhyhirska Street, Kyiv in the context of mixed layer. It is made of sandstone and depicts a standing bearded man wearing a conical helmet with a knife or short sword on his chest near (but not in) his right hand. The hands simply executed and the facial features schematically depicted: round eyes, eyebrows-lines, the straight projection of nose and the simple lines of the mouth and the mustache. Traces of black colouring are preserved in the lower points on the surface of the figure (fig. 1), sufficient to suggest that the whole figure was painted black. The base of chess

piece is oval and it measures 60 mm in height, with a diameter of 24-35 mm.

In Old Rus'ian anthropomorphic chessmen are rare and the Podil example can be compared stylistically to three excavated examples from other sites: a 12th-13th century king-piece from Brest (Lysenko 1974; Lysenko 1985: 285-286, fig. 197; Lysenko 1989: 112-113; Medvedeva 2005: 14-15, fig. 1: 2); a 12<sup>th</sup> century "queen"-piece from Lukoml (which looks more like an oriental-style chess figure, a "farzin" or vizier) (Shtyhau 1993: 376; Shtyhov 1982; Medvedeva 2005: 16-17, fig. 2: 1) and a late 11<sup>th</sup> – early 12<sup>th</sup> century pawn from Volkovysk (Tarasenko 1957: 278, fig. 14; Vysotskaia 1993: 223; Medvedeva 2005: 19, fig. 2: 2). The 12th – early 13th century piece from Chernihiv (Ignatenko, Kovalenko 1993: 38, 147, fig. 7: 2; Kovalenko 2006, 91, fig. 5), and the late 11<sup>th</sup> – early 12<sup>th</sup> century example from Slutsk (Kaliadzinski 2006a; Medvedeva 2005: 14-15, fig. 1: 1) are not considered as analogies for the Podil chessman because they are depicted sitting on a throne. The Slutsk piece in particular looks like a king observed in life: he wears a beard, sits on a throne and rests his hands on his knees (fig. 2: 5). The Chernihiv example is also shown sitting on a throne but he is beardless and holds an unrecognized object in his left hand and the right hand is broken. The figure wears a decorated crown and clothes redolent of expensive Byzantine fashions. The throne is carved with fauna in Ro-



**Fig. 1.** Chess piece, warder. Kyiv, Podil,  $12^{th}$  – early $13^{th}$  century. a – right side, b – front, c – base, d – left side, e – back. Photo by N. Khamaiko

manesque style (fig. 2: 4). Both examples are similar to Northern European chess pieces, including the late 12<sup>th</sup> century kings from both the Louvre Museum, Paris and the Lewis hoard from the British Museum, London and the National Museum of Scotland, and also the piece of ca. 1200-1250 from the Metropolitan Museum, New York (fig. 2: 1-3).

All the pieces described above exemplify different types of piece with the closest comparison the king piece from Brest, which differs in wearing a headdress rather than a helmet and in holding a shield and something that looks like a scepter or mace (fig. 3: 6; Linder 1975: 91; Lysenko 1989: 12-113; Medvedeva 2005: 14, fig. 1: 2). A closer comparison is the early 13<sup>th</sup> century warrior piece from Kraków, Poland: a standing armed man wearing a helmet and a hauberk and holding a sword in his right hand (Niemiec 2011, fig. 1, 2). The key difference is that the Kraków chessman holds a shield in his left hand (fig. 3: 4) whilst the Podil figure has no shield. The style of the Podil chessman can this be seen to be much closer to the warders of North European chess-sets, notably the well-known examples from the Lewis hoard (Caldwell, Hall, Wilkinson 2009: fig. 6c-i, 7a-e). They are depicted as bearded men wearing helmets and holding swords and shields. All of them are standing watchmen or warders (fig. 3: 1-3). The Kraków and Brest chessmen (fig. 3: 4, 6) were interpreted as kings by Niemiec (2011; see also Linder 1975: 91; Medvedeva 2005: 14-15), but their form suggests they too should be identified as warders.

The Old Rus'ian analogue for the warder is the rook or "ladia", which takes the form of a boat and so is even more different to the Podil piece. Examples are known from Grodno (12<sup>th</sup> century) and Volkovysk (late 11<sup>th</sup> – early 12<sup>th</sup> centuries) (Voronin 1954: 76, fig. 37; Tarasenko 1957: 275, 278; Linder 1975: 93; Miadzvedzeva 2005: 17-19). They represent a boat with people on board, a concept clearly rejected by the maker of the Podil piece, probably produced as a local copy of the North European style of warder.

During 2007-2008 and 2011 excavations on 35, Spaska Street, Kyiv recovered several bone pieces for various board games. Six gaming pieces and one die were found in the layers of the middle and late 12th century and partly in the mixed layers (Sahaydak, Khamaiko, Vergun 2008; 2009: 265-267; Sahavdak, Khamaiko, Komar 2015: 29). The formation of those horizons derived from the activities carried out in two yards and the range of finds includes several that point to both trade (imported glass and pottery, coins, weights) and craft working (traces of the goldsmithing and glass, bone and amber working). Two gaming pieces were preserved in horizon 5 in yard 2, building 6, dating to the second half of 12th century. Building 6, like the rest of horizon 5, was destroyed by fire, which also burned the two gaming pieces. They were piriform, pegged pieces, lathe-turned and made of large mammal tooth, probably walrus tusk (fig. 4: 1-2). One has a domed head with a pointed top and a raised collar whereby the head is separated from the neck. A round, drilled hole perforates the center of a flat base (fig. 4: 1; 5: 1). The piece is 35 mm in height, 24 mm in diameter (max.), and 4 mm in diameter across the base hole. It was cracked into seven frag-



Fig. 2. Chess kings: 1 – Louvre Museum, OA5541, late 12<sup>th</sup> century (photo: Marie-Lan Nguyen (Wikimedia Comons, CC=BY 2.5); 2 – Lewis collection, 1831,1101.78, British Museum (after MacGregor 2010: 61), late 12<sup>th</sup> century; 3 – Metropolitan Museum, 1978: 494, ca. 1200–1250; 4 – Chernihiv, 12<sup>th</sup> – early 13<sup>th</sup> centuries (after Kovalenko 2006: 91, fig. 5); 5 – Slutsk, 12<sup>th</sup> century (after Kaliadzinski 2006b: 39)

ments. The second piece was strongly calcined and slightly damaged. It has different shape, without of a moulded finial. Its flat sides have no traces of breaking and the edges of the piece are very smooth. So we can suppose that it was fractured earlier and then polished for convenience of using or perhaps more likely to be a result of frequent handling to play the game. Its proportions are slightly different at 23 mm in height, 31 mm max diameter, and 5 mm in diameter across the base hole. Its appearance is much wider and squatter (fig. 4: 2; 5: 2). Both pieces are typical of the game *hnefatafl*. This game is traditionally ascribed a Scandinavian origin. Whilst Mark Hall does not dispute a Scandinavian game with this name he has observed the need to remember that this was but one variant of a group of games popular across Northern Europe and adapted from the Roman game *Ludus Latrunculorum* (Hall 2007: 13, for pre-Viking, Pictish examples from Northern Britain; Hall, Forsyth 2011). Nevertheless, the style and context of these two pieces arrived in Kyiv in the 12<sup>th</sup> century via a northern trade route. Walrus skull fragments, discovered in horizons 5 and 6, may serve as evidence of this trade route. One fragment is the front part of the skull, including the nasal and sinus



Fig. 3. Chess warder: 1-3 – Lewis collection, AN0 1831,1101.78-144; 1831,1101.120; 1831,1101.122, British Museum, late 12<sup>th</sup> century; 4 – Kraków, Poland, early 13<sup>th</sup> century (after Niemiec 2011, fig. 1); 5 – Kyiv Podil, Ukraine late 12<sup>th</sup> – early 13<sup>th</sup> centuries; 6 – Brest, Belarus, 12<sup>th</sup>-13<sup>th</sup> century (after Lysenko 1993: 98)



Fig. 4. Hnefatafl game pieces from Kyiv Podil, late 12<sup>th</sup> century. Photos by N. Khamaiko

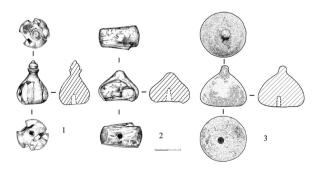


Fig. 5. Hnefatafl game pieces from Kyiv Podil, late 12<sup>th</sup> century. Drawings: 1, 2 – after Sahaydak, Khamaiko, Vergun 2008: fig. 2; 3 – by N. Khamaiko

areas of the upper canines. There are several cut marks indicative of the extraction of the tusks and the cutting away of the flesh. Tusk fragments were also found in horizon 5, in the workshop of a goldsmith and merchant occupying a neighbour's yard. Of the three fragments, one has a round cut-mark and a second had been fashioned as a round plate, both indicative of on-site working. Walrus tusk is amongst the rarest and most expensive of raw material for carving handicrafts. In Novgorod their total mass amounted to 6% of all the treated animal bones, an only 5% of total waste belong to the walrus tusk carving (Smirnova 1999: 124). Most of this high value material was found in the wealthier yards of Novgorod. The most active period in the treatment of walrus tusk is the late 11th - early 13th centuries (Smirnova 1998). Novgorod spread its influence to the northern lands in the late 11<sup>th</sup> century, facilitating the acquisition of walrus tusks along those new routes. The Hypation Chronicle, for the year 1160 year includes it in the list of Prince Rostislav Mstislavovitch's gifts to Prince Sviatoslav Olgovich, along with the skins of polar foxes and wolves (Ipatievskaja Letopis 2001: 504).

The third gaming piece from the Spaska excavations is also a piriform, pegged example. It measures 36 mm (height) x 32 mm (max diameter) x 4 mm (base hole diameter) (fig. 4: 3; 5: 3). It was found, like the walrus skulls, in Yard 2, in Horizon 6, a non-fire layer dating to the middle 12th century. It is made of antler, one of many antler artefacts and pieces of working debris from Horizon 6 of the homesteads. It is further evidence for the local, on-site production of gaming pieces. Such piriform pieces were used for the Scandinavian variant of tafl, that is, hnefatafl. The known gaming pieces from the Old Rus territory were analyzed by G. F. Korzukhina (1963) and included examples made of glass, bone, stone, amber and ceramic, found in various places including Ladoga, Gnezdovo, Timerevo, Sedniv, Chernihiv, Shestovytsia and Kyiv. Some Old Rus' barrows of the 10<sup>th</sup> century contain finds with Scandinavian elements, including hnefatafl sets. The set from Chorna Mohyla consists of two kinds of pawns and one gilded copper alloy king. This king piece is sometimes interpreted as a statuette of a Scandinavian God (Thor?; Samokvasov 1908: 199; Rybakov 1949: 43; Pushkina 1984; Petrukhin 2007: 63, 70, fig.

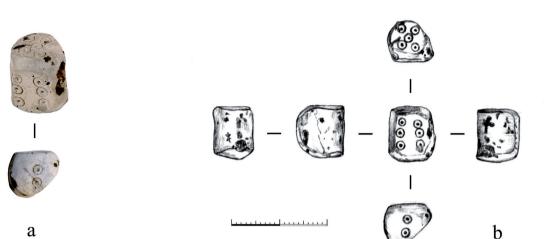


Fig. 6. Die from Kyiv Podil, late 12th century. Photos (a) by N. Khamaiko and drawings (b) after Sahaydak, Khamaiko, Vergun 2008: fig. 2

38; Duczko 2004: 240, fig. 70d), but it undoubtedly belongs to the anthropomorphic type of *hnefatafl* king pieces (Khamaiko 2012: 286-288).

Current understanding recognises two different types of bone *hnefatafl* gaming pieces cognate with two chronological episodes read as two waves of Scandinavian influence into Rus'. Thus the set from Chorna Mohyla in Chernihiv has been dated to 950-970, whereas the piece (and its implied set) from the Spaska excavations is dated to the mid late 12<sup>th</sup> century.

The bone pieces from Ladoga, Gnezdovo, Gorodok upon Lovat are not like the piriform, pegged gaming piece from the Spaska excavations, which has no close analogues in the Old Rus'ian area. Rather, the analogues are all examples from North Europe. An unprovenanced set of walrus ivory is in the Curle collection, which was bought in Gotland, and undoubtedly connected with Scandinavian culture (Kidd, Thunmark-Nylén 1990: 170-171, fig. 22). Archaeologically provenanced examples include those from Fröjel, Gotland, dated to the 7th-12th century (Carlsson 1999: 85); Dublin, dated to the 11th century, Trondheim to the early 12th century and Sandnes, Greenland, to the 12th century (Roesdahl, Mohen, Dillman 1992: nos 595, 572, 342); York, dated to the 12<sup>th</sup> to the mid-13<sup>th</sup> century (MacGregor, Mainman, Rogers 1999: 1981-1982, fig. 940, nos 7888, 7889) and Jarlshof, Shetland (Curle 1954: 21, fig. 5).

Gaming pieces from Spaska excavations have holes for peg at the base. Grettis saga tells about gaming pieces with pegs, using for the game *hnettafl* (Boer 1900: 251). Board of Gokstad (Murray 1952: 58, fig. 22) or Trondheim (Roesdahl, Mohen, Dillman 1992: no 572) types can't be used for playing gaming pieces with pegs. For these purposes can be suitable only board with holes, like famous Ballinderry board from Ireland (O'Neill Hencken 1941: 5-6, fig. 2).

The die from Kyiv was found in the burnt layer of horizon 4A at 35, Spaska Street. The burning layer resulted from the destruction by fire of a large wooden Building 7/27 at Yard 1, linked to jewellery production in the late 12th century. This deposit is chronologically very close to Horizon 5 of Yard 2. The die is incomplete but sufficient survives to indicate that when complete it was of parallelepiped form. It is made of mammal tooth, probably walrus tusk. The surviving faces of the die carry the ring-and-dot numbering 2, 5 and 6. It measures  $11 \times 9 \times 9$  mm (fig. 6). Dice are common finds in Old Rus'ian area. They were used not only in dice games but to control the moves in board games including backgammon, tafl variants and even some kinds of chess (Golladay 2007).

The final category of gaming equipment for discussion here is that of the counter or tableman type of gaming piece. Three have been found in the recent Kyiv excavations of which two are well preserved

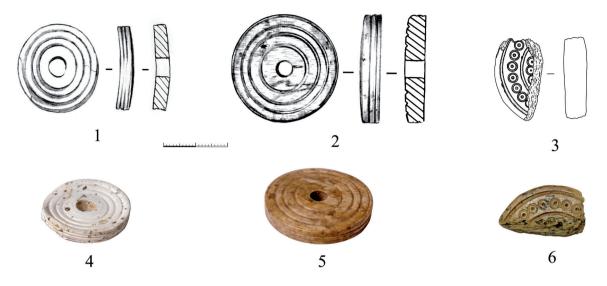


Fig. 7. Counters from Kyiv Podil, late 12<sup>th</sup> century. Drawings after Sahaydak, Khamaiko, Vergun 2008 (1, 2) and by N. Khamaiko (3); photos (4-6) by N. Khamaiko

and complete and the third is only a fragment. The two complete discs have a central, through perforation. One has its surface decorated with three incised concentric circles and two incised, parallel grooves around the outer edge face. Visual identification as antler is uncertain because the counter has been calcined and slightly deformed as a consequence of being caught in a fire. It measures  $25 \times 27$  mm in diameter, with a thickness of 4mm and a hole diameter of  $6 \times 7$  mm (fig. 7: 1, 4). It was found in the remains of a burnt building of the mid-late 12th century (Horizon 4B) at a depth of 1.85 m in the filling of the Bilding 1A of Yard 2 (Sahaydak, Khamaiko, Vergun 2008: 137, fig. 2: 5). The second, complete counter was obtained from a redeposited layer. Its' surface rises almost imperceptibly to its centre and is decorated with four concentric circles, and two parallel, edge-face grooves. It is made of (deer) antler and measures 33 mm (diameter)  $\times$  5 mm rising to 6 mm (height)  $\times$  5.5 mm (hole diameter) (fig. 7: 2, 5; Sahaydak, Khamaiko, Vergun 2008: 138, fig. 2: 4). The fragmentary third counter is of more elaborate type. Its size and shape  $(27 \times 15 \times 8 \text{ mm})$  suggest an original diameter of 35 mm. The surviving decoration indicates at least two widely separated concentric circles interspersed with space-filling ring-and-dot ornament (fig. 7: 3, 6).

All three counters are typical for Old Rus'. More usually they are made of bone and with the same

forms of decoration, examples including counters from Kyiv (Dytynets' or Upper Town), Luchesk, Vitebsk, Polotsk, Novgorod and Sarkel (Sahaydak, Khamaiko, Vergun 2008: 140, fig. 3). This type of gaming pieces was common across the whole of Europe and most obviously associated with the game of tabula or tables (which survives today as the backgammon variant) (cf. Murrey 1952: 113-115; Bell 1969: 34-37; Midgley 1975: 22-25; Bell 1983: 90-91). This type of gaming pieces seems to appear in the archaeological record of Rus' at the turn of 10th-11th century, after the Conversion, and was in use for this game for a long time afterward. Consequently they have been linked to the northerly flow of imports from the Byzantine world. Such gaming pieces are widely spread in the Byzantine world and were also found in large numbers in the Crimean province of Chersonese. Such counters were not exclusive to the tabula group of games (for examples of which see, several illuminations in the Libro de los juegos of Alfonso X and the Carmina Burana manuscript, dated back to 13th century, see Golladay 2003: f. 73v-77v; Carmina Burana: bl. 91um.) but were also used for the merels group (including nine men's morris) and the later medieval game of draughts. The term "draughtsmen" is often applied anachronistically to such counters - i.e to any disc even if they predate the game draughts; a consequence of the huge popularity of draughts in the 18th and 19th centuries.

These latest discoveries of gaming pieces have changed some of the existing ideas about board games in ancient Kyiv. Until recently only the abstract type of chess piece was known in Kyiv but now we have, with the warders (or rooks) discussed here, the figurative type too. This adds a more Northern dimension both in the parallels with the Lewis chessmen and also the Scandinavianstyle hnefatafl pieces. Conventional archaeological opinion suggests that all artefacts from Southern Rus made of walrus tusk were produced in Northern Europe or in the Novgorod area. But the finding of fragments of walrus skulls and walrus tusk debris in the same layers of the Spaska excavations as some of the gaming pieces does suggest local, Kyiv production of these objects. New finds of gaming pieces from Kyiv's Lower Town definitely reveal influences and direct connections with Northern and Western Europe. The Old Rus'ian culture is usually associated with Scandinavian influence only in the 9<sup>th</sup>-10<sup>th</sup> century but these latest discoveries extend that horizon to at least the 12th century and place the emphasis on trading activity. Chief amongst the trading contacts was that with Gotland, which culminated in the late 12<sup>th</sup> – early 13th century with the signing of separate trade treaties with Novgorod and Smolensk. Rus' merchants dealing with Gotland brought back not only goods and raw materials, but also foreign traditions and games, reflections of which we observe in the merchants's and craftsmans's yards from Kyiv Podil.

#### References

Alfonso X El Sabio

- 2003 Alfonso X's Book of Games. S. M. Golladay (transl.). [pdf]. Available at: http://jnsilva.ludicum.org/ HJT2012/BookofGames.pdf. [Accessed 14.11.2017].
- Bell R. C.
- 1969 Board and Table Games from many Civilisations (I). London.
- 1983 The Board Game Book. London.
- BOER R. C.
- 1900 (ed.), *Grettis saga Ásmundarsonar* (= Altnordische Saga-Bibliothek 8). Halle (Saale).

CALDWELL D. H., HALL M. A. AND WILKINSON C. M.

2009 The Lewis Hoard of Gaming Pieces: A Re-examination of their Context, Meanings, Discovery and Manufacture. *Medieval Archaeology* 53: 155-203.

CARLSSON D.

1999 "Ridanäs". Vikingahamnen i Fröjel. Visby.

Carmina Burana

Carmina Burana, Münchener Digitalsierungszentrum – Digitale Sammlungen Bayerische StaatsBibliothec – Hss Clm 4660. [online]. Available at: http://daten.digitale-sammlungen.de/~db/0008/bsb00085130/images/ index.html?seite=00001&l=de [Accessed 14.11.2017]

Curle A. O.

1954 Dwellings of the Viking Period at "Jarlshof", Sumburgh, Shetland. In: H. Shetelig (ed.), *Viking Antiquities in Great Britain and Ireland* 6: 7–63. Oslo.

**Duczko W.** 

2004 Viking Rus. Studies on the Presence of Scandinavians in Eastern Europe (= The Northern World 12). Leiden and Boston.

Golladay S. M.

2007 Los Libros de Acedrex Dados E Tablas: Historical, Artistic and Metaphysical Dimensions of Alfonso X's Book of Games. Arizona.

GUPALO K. N. (Гупало К. Н.)

1982 Подол в древнем Киеве. Киев.

Hall M.

- 2007 Playtime in Pictland: The Material Culture of Gaming in Early Medieval Scotland. Rosemarki.
- Hall M. A., Forsyth K.
- 2011 Roman rules? The introduction of board games to Britain and Ireland. *Antiquity* 85: 1325-1338.
- Нирало К. М., Толоснко Р. Р. (Гупало К. М., Толочко П. П.) 1975 Давнокиївський Поділ у світлі нових археологіч-
- 1973 давнокивський подл у свили нових археологичних досліджень. Іп: П. П. Толочко (ed.), Стародавній Київ: 40-79. Київ.
- Ідпатенко І. М., Коvalenko V. Р. (Ігнатенко І. М., Коваленко В. П.)
  - 1993 Нові дослідження на верхньому замку в Чернігові. Іп: Д. Н. Козак (ed.), Археологічні дослідження в Україні. Надстир'я: 38-39. Луцьк.
- Ipatievskaja Letopis
  - 2001 Ипатьевская летопись (= Полное собрание русских летописей 2). Москва.
- Каliadzinski L. U. (Калядзінскі Л. У.)
  - 2006а Касцяныя вырабы з раскопак дзяцінца летапіснага Слуцка XII - XIII стст. Матэрыялы па археалогіі Беларусі 12: 149-154.
  - 2006b "В лето 6624 (1116)..." (да 890-годдзя першага ўпамінання Слуцка ў летапісе). Беларускі гістарычны часопіс 10: 36-40.
- Кнамаіко N. V. (Хамайко Н. В.)
- 2012 Тавлейные короли X в. In: О. А. Щеглова, В. М. Горюнова (eds.), Славяне восточной Европы накануне образования Древнерусского государства: 284-288. Санкт-Петербург.
- KIDD D., THUNMARK-NYLÉN L.
- 1990 James Curle of Melrose and His Collection of Gotlandic Antiquities. *Fornvännen* 85: 153-173.
- Коггикніпа G. F. (Корзухина Г. Ф.)
- 1963 Из истории игр на Руси. Советская археология 4: 85-102.
- Коvаlenko V. Р. (Коваленко В. П.)
  - 2006 Новые византийские находки из Чернигова и его округи. Іп: П. П. Толочко et al. (ed.), Русь на перехресті світів (міжнародні впливи на формування Давньоруської держави) IX—XI ст.: 89-102. Чернігів-Шестовиця.

- 2007 The Finds of Byzantine Ceramics in Chernihiv and Environs, In: A. Aibabin, H. Ivakin (eds.), Kiev – Cherson – Constantinople. Ukrainian papers at the XXth International Congress of Byzantine Studies (Paris, 19-25 August 2001): 243-255. Simferopol– Paris–Kiev
- LINDER I. М. (Линдер И. М.)
- 1975 Шахматы на Руси. Москва.
- Lysenko P. F. (Лысенко П. Ф.)
  - 1974 Исследования Брестского отряда. In: Б. А. Рыбаков (ed.), Археологические открытия 1973 года: 375. Москва.
  - 1985 Берестье. Минск.
- 1989 Открытие Берестья. Минск.
- MACGREGOR A., MAINMAN A. J., ROGERS N. S. H.
  - 1999 Craft, industry, and everyday life: Bone, Antler, Ivory and Horn from Anglo-Scandinavian and Medieval York (= The Archeology of York 17). York.
- Мерvереvа V. (Мядзведзева В.)
- 2005 *Сярэдневяковыя шахматы Беларусі*. Мінск. Міддley R.
- 1975 (ed.), *The Way to Play*. London–New York. Murrey H. J. R.
- 1952 *A History of Board Game Other Than Chess.* Oxford. NIEMIEC D.
- 2011 Czy Konrad Mazowiecki grał w szachy na Wawelu? In: K. Dzięgielewski, Ł. Oleszczak (eds.), Po drugiej stronie... Raporty przyjaciół-archeologów dla Wojtka Cholewy "Jonesa": 195-206. Pękowice.
- O'NEILL HENCKEN H.
- 1941 The Harvard Archaeological Expedition in Ireland. American Journal of Archaeology 45(1): 1-6.
- Реткикніп, V. YA., (Петрухин В. Я.)
  - 2007 Дохристианские древности: по археологическим материалам, IV – X вв. In: А. И. Комеч (ed.), Искусство Киевской Руси. IX – первая четверть XII века (= История русского искусства 1): 40-79. Москва.
- Ризнкіна Т. А. (Пушкина Т. А.)
- 1984 Бронзовый идол из Чёрной могилы. Вестник Московского университета 3 (История 8): 86-87.
- Roesdahl E., Mohen, J.-P., Dillman F. X.
- 1992 Les Vikings... Les Scandinaves et l'Europe 800–1200. Paris.
- Rувакоv В. А. (Рыбаков Б. А.)
  - 1949 Древности Чернигова. In: Н. Н. Воронин (ed.), Материалы и исследования по археологии древнерусских городов I (= Материалы и исследования по археологии СССР 11): 7-93. Москва-Ленинград.
- Sahaydak M.
  - 2005 Medieval Kiev from the Perspective of an Archaeological Study of the Podil District. *Ruthenica* 4: 138-160.

- Sанаудак М. А., Кнамаїко N. W., Комаг О. W. (Сагайдак М. А., Хамайко Н. В., Комар О. В.)
  - 2015 Спаський розкоп Давньокиївського Подолу. Пам'ятки України 5-6: 20-31.

Sahaydak M. A., Кнамаіко N. V., Vergun O. I. (Сагайдак M. A., Хамайко Н. В., Вергун О. I.)

- 2008 Новые находки древнерусских игральных фигурок из Киева. In: О. П. Моця (ed.), Стародавній Іскоростень і слов'янські гради II: 137-145. Коростень.
- 2009 Нові дослідження торгівельно-ремісничих садиб давньокиївського Подолу. Іп: Д. Н. Козак (ed.), *Археологічні дослідження в Україні 2008*: 264-267. Київ.
- SAMOKWASOW D. YA. (Самоквасов Д. Я.) 1908 Могилы русской земли. Москва.
- Shtyhau H. V. (Штыхаў Г. В.)
  - 1993 Лукомль. In: В. В. Гетаў et al. (eds.), Археалогія і нумізматыка Беларусі. Энцыклапедыя: 376-377. Мінск.
- Shtyhov G. (Штыхов Г.)
  - 1982 Ферзь, найденный в Лукомле. 64 Шахматное обозрение 1982(20): 33.
- Smirnova L. I. (Смирнова Л. И.)
  - 1998 Косторезное ремесло средневекового Новгорода. Москва.
  - 1999 Сырье новгородских косторезов (рог, кость и "рыбий зуб"). In: А. А. Гиппиус (ed.), Великий Новгород в истории средневековой Европы (к 70-летию Валентина Лаврентьевича Янина): 123-134. Москва.
- Таказенко V. R. (Тарасенко В. Р.)
  - 1957 Раскопки городища "Шведская гора" в Волковыске в 1954 г. In: Е. И. Корнейчик, К. М. Поликарпович (eds.), Материалы по археологии БССР 1:258-279. Минск.
- Тоlоснко Р. Р. (Толочко П. П.)
  - 1972 Історична топографія стародавнього Києва. Київ.
- 1981 Новое в археологии Киева. Киев.
- Voronin N. N. (Воронин Н. Н.)
  - 1954 Древнее Гродно (по материалам археологических раскопок 1932-1949 гг.) (= Материалы по истории и археологии СССР 41). Москва.
- Vузотѕката N. F. (Высоцкая Н. Ф.)
  - 1993 Дзяржаўны мастацкі музей Беларусі. Іп: В. В. Гетаў, У. Ф. Ісаенка, Я. В. Малашзвіч, В. Н. Рабцзвіч, С. П. Самузль, Б. І. Сачанка, М. А. Ткачоў, А. А. Трусаў, І. П. Хаўратовіч, Г. В. Штыхаў (eds.), Археалогія і нумізматыка Беларусіі. Энцыклапедыя. Мінск.

# Authors

#### **Piotr Adamczyk**

The Museum of Archaeology and History in Elbląg ul. Bulwar Zygmunta Augusta 11 82-300 Elbląg, Poland e-mail; piotr.adamczyk@muzeum.elblag.pl

#### Monika Bajka

Olbierzowice 8, 27-640 Klimontów. Poland e-mail: bajkamonik@wp.pl

#### Dr hab. Robert Bubczyk, prof. UMCS

Maria Curie-Skłodowska University, Lublin Institute for Cultural Studies Pl. Marii Curie-Skłodowskiej 4 20-031 Lublin, Poland e-mail: r.bubczyk@poczta.umcs.lublin.pl

#### Prof. dr hab. Andrzej Buko

Institute of Archaeology and Ethnology Polish Academy of Sciences, Warsaw Al. Solidarności 105 00-140 Warszawa, Poland e-mail: abuko@uw.edu.pl,

#### Dr David Caldwell

Formerly a curator at the National Museum of Scotland, currently President of the Society of Antiquaries of Scotland 3 James Park, Burntisland, Fife KY3 9EW, Scotland, UK e-mail: dh.caldwell@btopenworld.com

#### Dr hab. Marek Florek, prof. UMCS

Maria Curie-Skłodowska University, Lublin Department of Medieval and Modern Period Archeology Institute, Pl. Marii Curie-Skłodowskiej 5 20-031 Lublin, Poland e-mail: gflorek@wp.pl

#### Dr Remigiusz Gogosz

ul. Bobrzyńskiego 21/ 59 30-348 Kraków, Poland e-mail: remi.gogosz@gmail.com

#### Dr. Mark A Hall

Perth Museum & Art. Gallery. 78 George Street, Perth PH1 5LB, Scotland, UK e-mail: MAHall@culturepk.org.uk

#### Natalia Khamaiko

Institute of Archaeology, National Academy of Sciences of Ukraine; Desiatynna Church's History Museum. 12 Heroyiv Stalingrada Ave., 04210, Kyiv, Ukraine e-mail: natalia\_khamaiko@iananu.org.ua

#### Dr Sylwia Konarska-Zimnicka

Institute of History. Jan Kochanowski University in Kielce ul. Świętokrzyska 15 25-406 Kielce, Poland e-mail: zimnicka@ujk.edu.pl

#### Elżbieta Kusina

Małopolska Chess Association, al. Powstania Warszawskiego 6/65 31-549 Kraków, Poland e-mail: elakusina@gmail.com

#### Jan Kusina

Małopolska Chess Association, al. Powstania Warszawskiego 6/65 31-549 Kraków, Poland e-mail: jan.kusina@gmail

#### Kristina Lavysh

The Center for the Belarusian Culture, Language and Literature researches of the National Academy of Sciences, Institute of Art History, Ethnography and Folklore Surganova str. ½ 220072, Minsk. Belarus e-mail: klavysh@mail.ru

#### Dr inż. Szymon Maćkowiak

Institute of Physics, Poznań University of Technology ul. Piotrowo 3, 60-965 Poznań. Poland e-mail: szymon.mackowiak@put.poznan.pl

#### Dr Olga Medvedeva

Institute of History of the National Academy of Sciences of Belarus Academic str., 1, 220072, Minsk, Belarus e-mail: olgamedv@tut.by

#### Egbert Meissenburg

D-21217 Seevetal RFA, Germany e-mail: meissenburg164@web.de

#### Dr Dariusz Niemiec

Institute of Archeology of the Jagiellonian University, Kraków ul. Gołębia 11 31-007 Kraków, Poland e-mail: niemiecdarek@poczta.onet.pl

#### Krzysztof Pańczyk

ul. Wyszyńskiego 10 m. 67 08-110 Siedlce, Poland e-mail: kpanczyk@wa.onet.pl

#### Carmen María Romeo

Majadahonda, Spain e-mail: ri-calvo@intrascac.e.telefonica.et

#### **Alessandro Sanvito**

Milano, Italia e-mail: asanvito@tiscali.it

#### Dr Marina Sergeeva

The National Academy of Sciences of Ukraine, Institute of Archaeology 12 Heroyiv Stalingradu Ave. 04210 Kyiv, Ukraine e-mail: sergeeva\_m@ua.fm

#### Prof. dr hab. Leszek Słupecki

University of Rzeszów, Institute of History, Mediaeval History and Old Norse Studies Unit ul. Moniuszki 10 35-015 Rzeszów, Poland e-mail; leszek.slupecki@interia.pl

#### Agnieszka Stempin

Poznań Archaeological Museum, Archaeological Reserve Genius loci ul. ks. I. Posadzego 3 61-107 Poznań, Poland e-mail: agnieszka.stempin@muzarp.poznan.pl

#### Kateriny Zisopulu-Bleja

Poznań Archaeological Museum, ul. Wodna 27 61-781 Poznań, Poland e-mail: kateriny.zisopulu@muzarp.poznan.pl