Base silver, less than half of the coin survives, 0.05 g, 10.8 mm. Paszkiewicz 2000, no. 74 (?).
Grid sq. 65, quadr. C, s.u. 14/62, inv. 764.

25. Silesia (?), Duchy of Opole (?), hohlpfennig, end of 14th–first half of 15th century (Fig. 71k).
Cross patée.
Billon, pitted by corrosion, 0.21 g, 15.8 mm.
Grid sq. 76, quadr. AD, s.u. 14/62, inv. 844.

26. Silesia, Wrocław, Charles IV, heller [1346–78] (Fig. 71l).
Obv. +KROL**R€**, lion rampant queue-fourché, crowned.
Rv. **OƊ€T**\\\\\\\, banded eagle.
Silver, substantially fractured edges, 0.14 g, 12.6 mm. Friedensburg 1931, no. 95.
Grid sq. 25, quadr. B, s.u. 83, inv. 533.

27. Silesia, Wrocław, Charles IV, heller [1346–78] (Fig. 71m).
Obv. +K\ROL'○**€**, lion rampant queue-fourché.
Rev. **Я**○**W**\\\\, banded eagle.
Silver, invasive corrosion, 0.16 g, 12.7 mm. Friedensburg 1931, no. 95.
Grid sq. 23, quadr. C, s.u. 14, inv. 640.

28. Silesia, Wrocław, Charles IV or Wenceslas IV, heller [before 1416] (Fig. 71n).
Obv. Uncertain legend, lion rampant queue-fourché.
Rev. Illegible.
Silver, fractured edges, 0.18 g, 11.8 mm. Friedensburg 1931, no. 95 or 96.
Grid sq. 25, quadr. D, s.u. 119, inv. 515.

29. Silesia, Wrocław, Charles IV or Wenceslas IV, heller [before 1416] (Fig. 71o).
Obv. **BOh'**○**€**, field illegible.
Rv. +MOƊ**I**, banded eagle, heavy beak, right.
Silver, bent and broken, missing nearly a half, 0.10 g, 11.8 mm. Friedensburg 1931, no. 95 or 96.
Grid sq. 18, quadr. B, s.u. 175 (two coins).

30. Silesia, Wrocław, Charles IV or Wenceslas IV, heller [before 1416] (Fig. 71p).
Obv. **R€**, lion rampant.
Rev. **TЯ**○\\\\\, lower part of banded eagle.
Silver, broken, c. ¼ of coin preserved, 0.03 g, 8.7 mm. Friedensburg 1931, no. 95 or 96.
Grid sq. 18, quadr. B, s.u. 175 (two coins).

31. Silesia, Wrocław, Wenceslas IV, heller [1378–1416] (Fig. 71r).
Obv. **€Ɗ****BOh**\\\, lion rampant queue-fourché.
Rev. uncertain legend, banded eagle.
Silver, 0.11 g (incl. glue), 11.6 mm. Friedensburg 1931, no. 96.
Grid sq. 75, quadr. A, s.u. 14, inv. 509.

32. Silesia, Wrocław, Wenceslaus IV, heller [1378-1416] (Fig. 71s).
Obv. uncertain legend, lion rampant queue-fourché.
Rev. **OƊ…**, banded eagle.
Silver, substantially pitted by corrosion, 0.11 g, 12.6 mm. Friedensburg 1931, no. 96.
Grid sq. 24, quadr. D, s.u. 83, inv. 607.

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4. ANIMAL BONE FINDS – MATERIAL EVIDENCE ON GAMES AND PLAY

The concepts of game and play are treated as synonymous and used interchangeably as equivalent terms. In his *Encyklopedia Staropolska Ilustrowana* (Encyclopaedia of Poland of old) Zygmunt Gloger gives the origins of the Polish word gra (game), and notes that it signified play and amusement in general, as children's play, the playing of musical instruments and martial games on horseback (Gloger 1972). In his *Homo Ludens* (1938) Johan Huizinga defines play as a voluntary activity or occupation, one pursued within a certain set time limit, according to rules which are adopted voluntarily but are then unconditionally binding, is an aim in itself, accompanied by a feeling of tension and joy and a consciousness of being "different" from "ordinary living" (Huizinga, 1967, pp. 48-49). John Roberts, Malcolm Arth and Robert Bush define games as organized play in which two or more sides compete following agree-

ment on winning and losing. In other words, a game has clearly defined, well-understood rules, accepted and followed by its participants, whereas play may be spontaneous and have rules of its own (Roberts, Arth, Bush 1959, p. 597). Distinguishing a game from play is difficult and depends on circumstances, on whether we have to do with a competition subject to rules or with carefree amusement. If the wish to make material profit is added, then the activity is definitely gaming [i.e. gambling].

Games and amusements are important for the development of culture. We find their reflection in art as well as in philosophy. A particularly valuable medium, which offers insight into the ways of spending leisure time in the past, is the archaeological, historical and iconographical sources. Of the latter noteworthy is the *Book of Hours*, illustrated by the Dutch artist Simon Bening (1483–1561), which depict various aspects of daily life associated with work and recreation, and the paintings of Pieter Bruegel the Elder, e.g. *Children's Games* (1560), and the *Fight Between Carnival and Lent* (1559). Many of the games shown in them still survive today although in the age of computer games some of them may soon fall into oblivion.

The focus of the present analysis are bone finds, linked to recreational activity at large, uncovered during the archaeological excavation carried out in the Market Square in Gliwice. They derived from the cultural deposits dated from the 13th to the 19th centuries. The series includes 103 phalangeal bones and a single fragment of a sledge runner fashioned from the long bone of a horse. Some of the animal bones, due to their special shape, were particularly suited for use as gaming pieces. This group include phalanx and talus bones (astragali) of various animal species, mostly cattle and small ruminants. At times the only traces of their use is mechanical damage – chipped, worn shiny, rounded at the edges from being thrown, transported and stored inside cloth or leather pouches. At the same time, similar marks may be notches from processing the meat or the result of post-depositional processes making identification of this class of artefact in the archaeological material problematic. If the bones are lacking in clearly identifiable traces of working (drilled holes, ornament, presence of lead) they tend to be treated as ecofacts. The catalogue in this work lists only bone finds with evident traces of intentional treatment. The other 60 phalangeal bones (mostly of cattle), lacking similar evidence of working, possibly, also gaming pieces, have been included for statistical purposes. The shape of phalanx I and II of cattle is such that they can be set vertically on their proximal end, although the phalangeal bones from the hind limbs have a greater natural tendency to tilting and are less stable than their counterparts are from the front limbs. Interestingly enough, in the analysed group there are no talus bones (astragali), in contrast to the high frequency of the phalanx I bones of cattle. This is because, from the prehistoric age onwards astragali were used in fortune-telling, games, inscriptions were made on them; they were ascribed with apotropaic functions, were worn as amulets and even were used as models for "astragali" made of metal, glass stone and clay (MacGregor 2001, pp. 134–135; Zawadzka-Antosik 2003, pp. 331–332; Dandoy 2006, pp. 131–137). Presumably, in the material from Gliwice the alternative for the astragali are the phalangeal bones. A particularly high concentration was observed within grid square no. 25 (quadrants B and AB), situated in the southern part of the Market Square. They were present both in stratigraphic units (nos. 14, 83, 14A and 119) attributed to the earliest use of the market during the 13th–15th centuries, or the period predating the construction of the masonry Town Hall, and in modern period deposits (s. u. 155 – relic of a lightweight wooden structure – trading stall?) dated to the 17th–18th century. Jointly, this relatively small area of 50 m^2 yielded over 60% all phalangeal bones in a series of a total of 103 specimens. It is worth considering whether their presence has to do with entertainment or is the result of altogether different practices, e.g., specific methods of skinning the carcase, butchering or quartering the meat. We need to proceed with caution and analyse the archaeological material as a whole, as divorced from its cultural context it could lead to incorrect conclusions.

The catalogued series includes 42 phalanx I bones of cattle and a single phalanx I bone of pig (Cat. no. 10). These have been divided into two groups – with and without holes. These appear to be of two types: drilled (Cat. nos. 1, 7, 8, 10, 14, 20–22, 25–27, 39 and 41, Figs. 72a, f, g, j), or cut out with a knife or some other tool (Cat. nos. 5, 9, 16, 17, 32 and 34; Figs. 72e, h, i, 73b). Moreover, two specimens had on their surface small drilled dots – a decorative element – made so as not to perforate the wall of the bone (Cat. nos. 1 and 13; Figs. 72a; 73a). The size of the holes provides indirect evidence on the diameter of the drills used (between 2 and 7 mm). The holes were mostly on the base of the proximal end of the bone, very rarely, on the outer (dorsal), inner or side faces of the bone. In six cases, the presence of lumps of lead was identified, inserted into the cavity of the bone through the perforation or perforations (Cat.

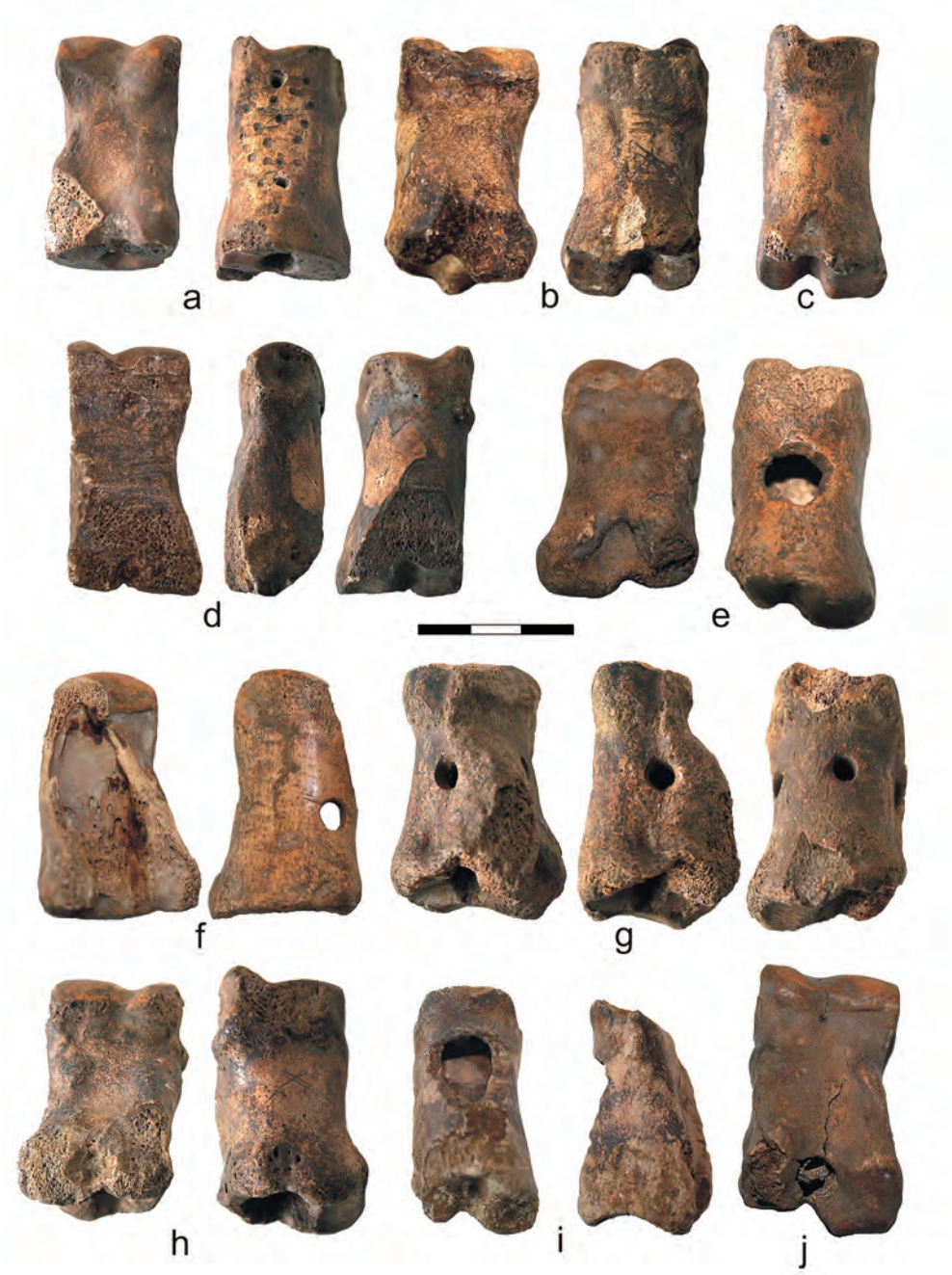

Fig. 72. Gliwice, Market Square. Animal phalangeal bones. Photograph M. Konczewska

nos. 1, 14, 20, 25, 26 and 27; Fig. 72a, j). Noteworthy are two specimens weighted with lead, which have two holes in their base (Cat. nos. 14 and 25; Fig. 72j). One of these has one more hole, drilled on its inner face, near to the distal epiphysis (Cat. no. 25). Also interesting are phalanges I bones of cattle, one with 5 holes, two of them drilled all the way through (Cat. no. 8; Fig. 72g), and a specimen with traces of white pigment on its inner face (Cat. no. 19; Fig. 73d). Given that no. 19 rested within a stratigraphic unit dated from the 16th to the 19th centuries, it is unclear whether the bone become stained by accident or had been painted to mark or to decorate it. The dyeing of bones red using a dyer's madder is mentioned in the 12th century treatise of Theophilus Presbyter (Polish edition: Teofil 1998, p. 164). Several recipes are to be found in Plictho written around 1548 by Gioanventura Rosetti and in the works of other authors (cf. MacGregor 2001, p. 70). One of the finds is interpreted tentatively as a whistle (Cat. no. 17, Fig. 72i). This is suggested by its truncated distal end, formed into a mouthpiece, and a hole in its outer surface. This use was confirmed by experimentation. Also noteworthy is a bovine phalanx I, trimmed level

at one end in which a hole and two smaller openings were drilled, a fourth hole made in one of the side faces (Cat no. 39). The straightened end suggests that the object was used as a game piece or a target (skittle) in a throwing game (for knocking down). The purpose of drilling the two additional holes at bottom is unclear.

The second group of finds (17) are bovine phalangeal bones without holes. They may be distinguished into specimens decorated on their outer face (Cat. nos. 2, 6, 11, 12 and 29; Figs. 72b–c, 73c), specimens with traces of working on their surface, and phalangeal bones of undetermined function. With their inner face cut straight and their outer face cut at an angle, they cannot be set upright (Cat. nos. 3, 15, 24, 31 and 42; Fig. 72d). Decorative motifs include shallowly drilled openings, horizontal incisions and diagonally intersecting lines (Figs. 72g, 73c).

Animal phalanges provided with additional openings tend to have the functions of dice and gaming pieces, skittles (bowling pins), fishing pole weights, pendants, amulets, rattles, whistles and elements of musical instruments ascribed to them (Schütte 1982, p. 201; Ulbricht 1984, p. 63, Pl. 47:5–12; Norska-Gulkowa 1985, pp. 252–254, Fig. 12r, s; Rębkowski 1996, pp. 338–339; Rębkowski 1998, p. 280; Borkowski 1999, p. 198; Jastrzębski 1999, p. 95; MacGregor 2001, pp. 134–135). They are known from many European sites. A large series of this type of object, dated to the 13th–15th century comes from Wrocław. They were discovered e.g. in Dominikański Square, in the Cloth Hall, in no. 18 Igielna Street (Jaworski 2002, p. 234–235, Fig. 225), no. 10–11 Więzienna Street (Borkowski 1999, pp. 187–189, Jaworski 1999, p. 89), in św. Mikołaja and Wierzbowa streets (Jastrzębski 2004, p. 250, Figs. 1a, b, 6f).

On the subject of the game of dice Zygmunt Gloger writes that the common people imitated the upper classes and if dice with pips were not available they used the small bones from a calf's feet which they threw onto the sand and the way these fell, flat or on edge, decided the winner or the loser (Gloger 1972). Dice were rolled from the hand or from a special cup and the result was read from the way they were arranged. Every facet corresponded to a specific number of points, sometimes represented on the face, although usually it was not marked which gave the players greater freedom in ascribing a value to it. The winner was decided by the total points which had been thrown. Typically, four or five talus bones would be used in the game. In a game of "ring", the players threw the dice onto a ring or a small hollow

Fig. 73. Gliwice, Market Square. Animal phalangeal bones. Photograph M. Konczewska

trying to knock the opponent's dice out of the ring or from the hollow. Another game was to toss five dice up so that they would fall, upper face up, onto the palm of the hand. The dice, which had fallen to the ground, had to be picked up without dropping those resting on the hand (Zawadzka-Antosik 2003, pp. 331–332).

In another game, the phalangeal bones would be set upright in a row and a ball, a stick or a long bone would be thrown at them. For greater stability, they would be filled with lead or some other material (Schütte 1982, p. 201; Borkowski 1999, p. 198). It is possible that wooden pins were also used for the same purpose. Two phalangeal bones of cattle discovered in Wrocław (in Szewska Street and Uniwersytecki Square, and in a trench on the corner of these two streets) had a pin inserted into an opening made at bottom of the proximal epiphysis (Konczewska 2010, p. 247). The remains of a broken wooden wedge was also identified in one of the openings of a find originating from Ratuszowa Street in Kołobrzeg (Rębkowski 1996, p. 339).

In the game of skittles, there may have a single target originally, later there were three pins, and subsequently their number was fixed at nine. The oldest reference to the game comes from 1265, the time of the first mention of skittle houses at Xanten in Germany (*fratres recepti ad ludum Kegelorum)* (Müller 1996, p. 151). Arthur MacGregor notes that

Fig. 74. Games played using animal phalangeal bones: a–b – fragments of Pieter Bruegel the Elder's *Children's Games*, c – detail from the *Book of Hours* illustrated by Simon Bening, (http://www.bl.uk/onlinegallery/ttp/golf/accessible/pages19and20.html#content)

in a game still played in the early 20th century in Friesland the bones were placed in long rows in the ground to be knocked down with a long bone or a stick (MacGregor 2001, p. 134). A scene of a game of dice played with knucklebones is depicted by Pieter Bruegel the Elder in his *Children's Games* (Web Gallery of Art.; cf also Borkowski 1999, p. 194, Fig. 12). Another game illustrated in this painting is the game of skittles, played using animal phalangeal bones. An analogous game is seen on the calendar page for October featured in the *Book of Hours* illustrated by Simon Bening (British Library Add MS 24098, f. 27v–28; http://www.bl.uk/onlinegallery/ttp/golf/accessible/pages19and20.html#content). In it, one of the players is putting away the animal toe bones in a pouch as other players prepare to throw theirs (Fig. 74c). We can only guess whether the winner collected the dice of his opponents. What we do know is that gaming was condemned both by the Church and by the lay authorities (Konczewska 2010, pp. 245–246). Hugo von Trimberg in his didactic poem *Der Renner*, c 1300, places the game of bowls and skittles among the Seven Deadly Sins (Müller 1996, p. 153). The Statute of Wiślica of 1347 outlawed all gambling but did allow games played for entertainment and to exercise the body (cf. Szczepańczyk 1986, pp. 114–115, with a list of references). Skittles played on grass enjoyed great popularity during the 13th century. So much so that King Edward III of England banned the game, concerned that it made his people lose interest in archery.

In archaeological literature, decorated animal phalangeal bones have been interpreted as gaming pieces used in board games. Some bear inscriptions, are carved with symbolic marks and even with schematic drawings (MacGregor 2001, p. 134). Find no. 17 discovered in Gliwice, with holes drilled in its outer face (Cat. no. 1, Fig. 72a), has analogies in material from Wrocław, namely, in two finds recovered at no. 3 Wierzbowa Street in a feature dated to the 14th–early 15th century. One of them had the same number of pips as the object from Gliwice (Jastrzębski 2004, p. 250, Pl. 2). Patterns of intersecting lines, single dots and horizontal incisions (Cat. nos. 2, 6, 9, 11, 12, 13 and 28; Figs. 72b–c, 73a, c) could have been marks of ownership, helping to identify one's gaming pieces during the game.

Kazimierz Moszyński noted the practice of perforating small bones and threading them onto a string to make a buzzing toy (1967, p. 351).

It is also possible that bovine phalangeal bones with drilled holes were used in games of dexterity e.g., bilboque, also known as "ring and pin". In this game a target tied to a string, with its other end attached to a pin, was tossed upwards and then skewered onto the sharpened pin. The Native Americans,

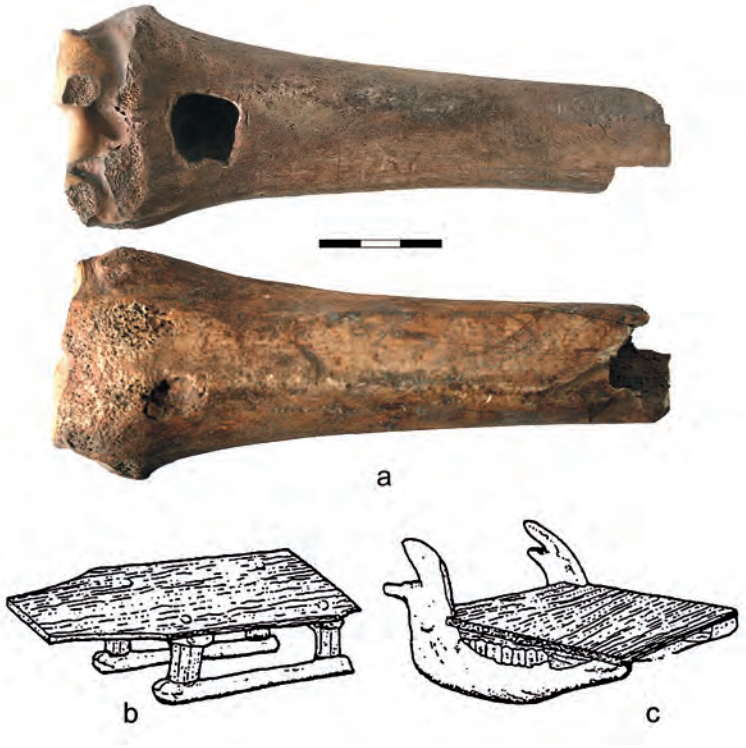

Fig. 75. A medieval sled: a – fragment of a bone sledge runner from Gliwice; b–c – reconstruction of a sledge with runners made of long bones (b) and mandible (c) (MacGregor 2001)

Table 1. Catalogue of animal phalanges

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
1	Cattle phalanx I, proximal epiphysis truncated and smoothed, 3 drilled holes: one in base and two in outer face	47	19.95	3	8	3 and 3.5	–	–	–	on outer face, 17 small shallow drilled holes, in central area, traces of smoothing the surface with knife	+	35	D	149A	441	16th c.	stands upright, battered on inner face
2	Cattle phalanx I	53	21.3	none	–	–	–	–	–	on outer face, 5 horizontal incisions and 2 diagonal lines intersecting with a single line	–	35	D	149A	441	16th c.	stands leaning to the left
3	Cattle phalanx I, inner face truncated straight down its entire length (surface is with traces of smoothing with knife), outer face bevelled at the proximal ephiphysis	50	15.09	none	–	–	–	–	–	–	–	35	D	149A	441	16th c.	cannot be made to stand
4	Cattle phalanx I, inner face truncated at the epiphysis	49.5	13.05	none	–	–	–	–	–	–	–	35	D	149A	441	16th c.	stands leaning to the right
5	Cattle phalanx I, on outer face, hole excised with knife	50.5	20.04	1	–	13	–	–	–	–	?	35	D	149A	441	16th c.	stands leaning to the right, battered
6	Cattle phalanx I	52.5	16.15	none	–	–	–	–	–	on outer face at centre, shallow drilled hole	–	35	D	149A	441	16th c.	stands leaning to the right
7	Incomplete cattle phalanx I, truncated proximal epiphysis, 2 drilled holes: one in base, one on outer face	49	13.46	2	7	6	–	–	–	–	?	35	D	149A	441	16th c.	stands upright

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
8	Cattle phalanx I, with 5 drilled holes, two of them all the way through	51	20.45	5	6.5	5	5	5 and 4.5	–	–	?	48	B	14	256	13th–14th c.	stands leaning to the left, battered
9	Cattle phalanx I, with hole cut in base	49	23.06	1	13	–	–	–	–	at centre of outer face, engraved double diagonal cross	?	25	B	14	541	13th–14th c.	stands leaning to the right
10	Pig phalanx I, drilled hole in outer face	37	5.01	1	–	2	–	–	–	–	?	26	A	14A	349	13th–15th c.	stands, rattles when shaken
11	Cattle phalanx I, condyles of proximal epiphysis broken off intentionally	48	11.21	none	–	–	–	–	–	on outer face, 2 small shallow drilled holes	–	25	AB	83	562	13th–14th c.	stands leaning to the right
12	Cattle phalanx I, with 2 deep cut marks on outer face (traces of filleting?)	48	11.71	none	–	–	–	–	–	2 deep cut marks made with knife	–	44	D	14	686	13th–14th c.	unstable
13	Cattle phalanx I, damaged on inner face	51	12.22	?	–	–	–	–	–	at centre of outer face, 3 small shallow vertically drilled holes (the largest in the middle)	?	35	D	14	136	13th–14th c.	battered
14	Cattle phalanx I, cracked, presumably during drilling hence the 2 joined holes in base; inside bone cavity, a lead rod	54	46.194	2	7 and 4	–	–	–	–	–	+	25	A	14	545	13th–14th c.	stands leaning to the left, battered
15	Cattle phalanx I, truncated flat on inner face, broken off proximal epiphysis, distal epiphysis truncated exposing bone canal	52	12.12	none	–	–	–	–	–	–	–	25	A	155	504	17th–18th c.	cannot be made to stand

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
16	Cattle phalanx I, a hole cut with knife on inner face, two other irregular unintentional holes on the side and inner face	48	13.49	1	–	–	5x7	–	–	–	?	17	A	14	292	13^{th}–14^{th} c.	stands leaning to the left
17	Cattle phalanx I, with 2 holes: one on outer face, cut with knife, second hole formed naturally by oblique truncation of distal epiphysis	46	9.44	2	–	10×13	–	–	5x7	–	?	–	–	–	889	–	cannot be made to stand, a whistle?
18	Cattle phalanx I, with hole in side face presumably unintentional	49	15.51	1	–	–	–	4×5	–	–	?	27	D	14A	296	13^{th}–15^{th} c.	cannot be made to stand
19	Cattle phalanx I, with hole cut in outer face	48	11.74	1	–	5				on inner face, traces of white paint (stains)	?	34	B	24B	651	16^{th}–19^{th} c.	stands upright, battered
20	Cattle phalanx I, with hole drilled in base, lightly truncated proximal epiphysis, outer face smoothed	47	18.12	1	7	–	–	–	–	–	+	test trench 1	–	9	22/10	–	stands upright
21	Cattle phalanx I, with two holes: one drilled in base, the other in inner face on the right of proximal ephiphysis; additionally in base, drilled shallow pit	46	18.22	2	7	–	4	–	–	–	?	25	B	83	534	13^{th}–14^{th} c.	stands upright, battered

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
22	Cattle phalanx I, with hole drilled in base	53	16.25	1	7	–	–	–	–	–	?	25	B	83	534	13th–14th c.	stands leaning to the right, traces of working on condyles
23	Cattle phalanx I, inner face truncated down its entire length, outer face shaved lightly at proximal ephiphysis	50	11.695	none	–	–	–	–	–	–	–	25	B	83	534	13th–14th c.	stands upright
24	Cattle phalanx I, inner face truncated down its the entire length (marks of smoothing with knife), outer face cut off at both epiphyses	50	9.85	none	–	–	–	–	–	–	–	25	A	155	491	17th–18th c.	cannot be made to stand
25	Cattle phalanx I, 2 drilled holes in base, inside bone cavity lump of lead weighing 2 g, on inner face at epiphysis, drilled hole	54	21.8	3	6 and 6	–	3	–	–		+	25	B	119	516	14th–15th c.	unstable
26	Cattle phalanx I, with hole drilled in base, proximal epiphysis damaged	57	20.29	1	5	–	–	–	–	–	+	25	B	119	516	14th–15th c.	unstable, damaged
27	Cattle phalanx I, inner face truncated on its entire surface, on outer face triangular truncation at proximal ephiphysis, hole drilled in base, inside bone cavity, lump of lead weighing 1.04 g	56	14.42	1	5	–	–	–	–	–	+	25	B	119	516	14th–15th c.	stands leaning to the right

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
28	Cattle phalanx I, with hole in base and traces of working the proximal articular surface	52	13.48	1	7	–	–	–	–	on outer face, shallow horizontal incisions	?	25	B	119	516	13^{th}–14^{th} c..	stands leaning to the left
29	Cattle phalanx I, on outer face shallow horizontal incisions, presumably post–consumption marks	54	21.2	none	–	–	–	–	–	horizontal incisions	–	26	A	138	374	medieval	stands leaning to the right
30	Cattle phalanx I, with lightly truncated surface on inner face at proximal ephiphysis	48	13.07	none	–	–	–	–	–	–	–	25	B	14	541	13^{th}–14^{th} c.	stands leaning to the left
31	Cattle phalanx I, truncated straight on inner face and obliquely at both epiphyses of outer face	52	9.37	none	–	–	–	–	–	–	–	25	B	14	541	13^{th}–14^{th} c.	cannot be made to stand
32	Cattle phalanx I, with hole cut centrally in outer face	49	17.78	1	–	6x7	–	–	–	–	?	25	B	14	541	13^{th}–14^{th} c.	stands leaning to the right
33	Cattle phalanx I, with inner face truncated flat	54	12.94	none	–	–	–	–	–	–	–	25	B	155	479	17^{th}–18^{th} c.	stands leaning to the left
34	Cattle phalanx I, with hole cut centrally in inner face, proximal epiphysis partly broken off	47	19.05	1	–	–	14	–	–	–	–	18	A	83	408	13^{th}–14^{th} c.	cannot be made to stand
35	Fragment of cattle phalanx I, with hole drilled in base	30	7.97	1	4	–	–	–	–	–	?	28	D	14/83	294	13^{th}–14^{th} c.	stands leaning to the left

No.	Item	L.	Wt. in g.	Number of holes	D. of hole in base	D. of hole in outer face	D. of hole in inner face	D. of hole in side faces	D. of hole in the top	Decorative elements	Lead present	Square	Quadrant	S.u.	Inv. no.	Chronology	Comments
36	Cattle phalanx I, with hole in base, fragment of proximal epiphysis broken off	50	13.45	1	9	–	–	–	–	–	?	29	D	14	43	13th–14th c.	
37	Cattle phalanx I, proximal epiphysis truncated flat on inner face	53	12.38	none	–	–	–	–	–	–	–	25	B	14	530	13th–14th c.	stands leaning to the left
38	Cattle phalanx I, with hole drilled in base	53	18.28	1	5	–	–	–	–	–	?	25	AB	14	578	13th–14th c.	stands leaning to the left
39	Cattle phalanx I, with base truncated flat in which, a larger drilled hole and two smaller shallow holes, another hole drilled in the side face, fragment of distal epiphysis broken off	47	10.64	4	6, 3, 3	–	–	2.5	–	–	?	25	AB	14	576	13th–14th c.	stands upright
40	Cattle phalanx I, the base is ground flat	48	12.34	none	–	–	–	–	–	–	–	25	AB	14	576	13th–14th c.	stands upright
41	Cattle phalanx I, with hole drilled in base, fractured at distal epiphysis	50	14.46	1	5	–	–	–	–	–	?	65	B	119	770	14th–15th c.	stands upright
42	Cattle phalanx I, inner face truncated flat down its entire length	52	16.08	none	–	–	–	–	–	–	–	25	B	119	518	14th–15th c.	cannot be made to stand
43	Cattle phalanx I, surface of both epiphyses truncated on inner face	57	18.67	none	–	–	–	–	–	–	–	25	B	155	479	17th–18th c.	stands leaning to the right

in playing this game in the early 20th century, used as target rings bone or leather, animal toe bones, and skulls with additional holes drilled in them, as well as other similar objects (known at first hand to the author).

The last find linked to recreation is a 210 mm fragment of a runner from a sledge fashioned from a horse radial. On its inner face a square-shaped hole was cut with a knife, 21 × 23 mm, the outer surface was levelled and smoothed (Fig. 75a). The fragment was discovered in a layer dated to the 13th–14th century (grid square no. 25, quadrant A, s. u. 14, inv. no. 471) and suffered damage during exploration (a fresh break). The construction of this type of sledge consisted of two bone runners connected by means of four vertical supports – directly with the seat – or with horizontal linking pieces of the sledge seat (Fig. 75b). The whole sledge was assembled with iron nails or wooden pins. Similar bone runners were recorded in numerous sites in Europe, with a chronological span from the Neolithic to the 19th century. Medieval specimens are known from for e.g. Gniezno, Olsborg, Köpenick, Potzlow, Teterow, Wolin, Szczecin, Oslo, Bergen (MacGregor 2001, p. 1, pp. 143–145, Fig. 76 c, f) and Wrocław (Jastrzębski 2004, p. 256, Fig. 10a).

At first, sledges were presumably mainly used for transport. Next to large sledges for carrying people, small ones were also used, with a length of a few dozen centimetres, to transport small bundles. It is possible that sledges were used also outside the winter season (Robak 2009, p. 181). In time, sledges came to be used also for riding for pleasure, a favourite pastime not only of children and teenagers but also of adults. Sledging was promoted so well that in 1883, the first official sledging competition was held in Switzerland. There is a known 19th century description of sledges with bone runners used by fowlers on frozen lakes (MacGregor 2001, p. 145).

Games and play had an important role in the life of the townspeople and villagers giving them respite from the daily toil and providing them with some entertainment. They are connected inextricably with human playful behaviour and considered as a culture-forming and educational element.

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5. THE CERAMIC SERIES FROM THE TOWN SQUARE IN GLIWICE

Archaeological investigation carried out in the Market Square in Gliwice yielded a series of 38,580 fragments of pottery vessels. This material is varied, both from the point of view of technology and chronology and is representative for the period starting from around the mid-13th and early 14th century, the early urban phase of the city, until its late modern period (17th–19th century).

The mass character of the ceramic finds secured during the investigation in the Market Square made it necessary, when undertaking its first evaluation, to adopt one of the systems of classification of late medieval and post-medieval ceramics developed previously for other urban centres. Use was made, with some modification, of for e.g. the system developed and applied successfully to ceramic series recovered in the Old Town in Wrocław (e.g. Buśko, Piekalski, Wiśniewski 1992, pp. 136–138; Rzeźnik 1998, pp. 221–223; Niegoda 1999, pp. 159–161). This choice was dictated by the nature of the Gliwice ceramics that in many technological aspects resemble the late medieval and post-medieval series from Wrocław. We have to note in this context that more comprehensive analyses of medieval and post-medieval ceramic vessels from urban excavations in Upper Silesia are lacking at present. Similarly, the ceramic vessel finds from the Old Town in Gliwice have been discussed only in general, and mostly in the form of brief reports (Stankiewicz-Węgrzykowa 1957, pp. 11–13; Stabrowska 1986, pp. 198–199; Furmanek, Kulpa 2001, pp. 18–22; Furmanek 2004, pp. 365–366; Michnik, Zdaniewicz 2009, pp. 21–23). The criteria used in the present analysis to identify specific technological groups included, primarily, the methods of shaping, firing (evidenced by the vessel quality and colour of breaks), type of filler and, in some cases the surface finish. Due to serious fragmentation of the ceramics, the identification of vessel forms and their metric parameters was only an auxiliary criterion. We have to note that the findings and classification to specific technological groups was based on results from macroscopic examination.

Six groups of ceramic vessels were distinguished. (Fig. 76). Group A includes fragments of pottery fired under oxidizing conditions that resulted in a creamy, brick red, and in some cases, brown or grey hue. These vessels were wheel made presumably mostly using the method of kneading and sliding