

Appendix 1 Catalogue and drawings (photos) of the studied pellet bells and bells*

Catalogue

Legend: th. = total height, hwl. = height without loop, l. = length, w. = width, dm. = diameter, wth. = wall thickness, cw. = conserved weight, Inv. Nr. = inventory number, RRM = Rippl-Rónai Museum, Kaposvár

Locality: Kaposvár, Somogy county

Site: Kaposvár-Toponár, 40-es őrház (Kaposvár FO 33, 40/a), cemetery

Burials: 60 (status 1978)

Dating: 8th cen. / LAP

Pellet bells: 10

Excavation: 1975, rescue excavation

Lit.: Bárdos 1978; Bakay 1975; Szimonova 1997.

cat. 1.: Pellet bell RRM 76.702.2

Context: burial 18, infans/girl, pellet bell near left femur

Date: LAP

Conservation status: complete, rattle body pebble

Decoration: vertical and horizontal grooves on lower part

Shape: circular, shape II, cross-shaped sound slot, 1 sound hole at slot, 2 further rectangle sound holes near slot

Measurements: dm. 2.45 x 2.45 cm, th. 3.7 cm, hwl. 2.9 cm, wth. 1–2 mm, cw. 22.45 g

Material: bronze/lead bronze (Cu-Sn-Pb)

Frequencies: 1.9–19.7 kHz

Fig.: **Plate 1/1.**

cat. 2.: Pellet Bell RRM 78.27.3

Context: burial 36, infans/girl, pellet bell near left hand/left femur in leather glove

Date: LAP

Conservation status: 1 hole in body, rattle body lost

Decoration: smooth

Shape: circular, shape V, cross-shaped sound slot

Measurements: dm. 2.5 x 2.5 cm, th. 3.7 cm, hwl. 2.7 cm, wth. 1–2 mm, cw. 19.3 g

Material: bronze (Cu-Sn-(Pb))

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 1/2.**

cat. 3.: Pellet bell RRM 78.31.7

Context: burial 43, infans/girl, pellet bell near left arm

Date: LAP

Conservation status: complete, rattle body bronze ball

Decoration: smooth

Shape: round-oval, shape V, cross-shaped sound slot

Measurements: dm. 2.5 x 2.4 cm, th. 3.4 cm, hwl. 2.9 cm, wth. 1–2 mm, cw. 20.53 g

Material: bronze (Cu-Sn-(Pb))

Frequencies: 1.1–21 kHz

Fig.: **Plate 1/3.**

cat. 4.: Pellet bell RRM 78.31.8

Context: burial 43, infans/girl, pellet bell near left arm

Date: LAP

Conservation status: 1 hole in body, rattle body bronze ball or pebble

Decoration: vertical grooves on lower part

Shape: oval, shape II, cross-shaped sound slot, 2 sound holes

Measurements: dm. 2.15 x 2.35 cm, th. 3.3 cm, hwl. 2.7 cm, wth. 1–2 mm, cw. 14.46 g

Material: bronze/lead bronze (Cu-Sn-Pb)

Frequencies: 1.7–22 kHz

Fig.: **Plate 1/4.**

cat. 5.: Pellet bell RRM 78.35.4

Context: burial 48, woman pellet bell near left hand

Date: LAP

Conservation status: complete, rattle body pebble

Decoration: horizontal ribbon of vertical grooves

Shape: round-oval, shape VIII, cross-shaped sound slot, 2 sound holes at slot, 2 sound holes on vertex

Measurements: dm. 2.0 x 2.1 cm, th. 2.7 cm, hwl. 2.5 cm, wth. 1–2 mm, cw. 9.67 g

Material: bronze (Cu-Sn-Pb)

Frequencies: 1.9–21 kHz

Fig.: **Plate 1/5.**

cat. 6.: Pellet bell RRM 76.625.11

Context: burial 52, infans/child, disturbed

Date: LAP

Conservation status: deformed, rattle body lost

Decoration: smooth

Shape: oval, shape VII

Measurements: dm. 1.7 x 2.8 cm, th. 3.0 cm, hwl. 2.25 cm, wth. 0.5 mm, cw. 2.31 g

Material: lead bronze/bronze (Cu-Sn-Pb(-Zn))

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 1/6.**

cat. 7.: Pellet bell RRM 77.11.32

Context: burial 57, horseman and horse, disturbed

Date: LAP

Conservation status: complete, rattle body lost

Decoration: smooth

Shape: oval, shape VII

Measurements: dm. 1.9 x 2.8 cm, th. 3.4 cm, hwl. 2.4 cm, wth. 0.5 mm, cw. 1.48 g

Material: bronze (Cu-Sn-(Pb))

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 1/7.**

cat. 8.: Pellet bell RRM 77.11.31

Context: burial 57, horseman and horse, disturbed

Date: LAP

Conservation status: complete, rattle body lost

Decoration: smooth

Shape: oval, shape VII

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Measurements: dm. 1.9 x 2.8 cm, th. 3.2 cm, hwl. 2.3 cm, wth. 0.5 mm, cw. 1.8 g
 Material: gunmetal? (Cu-Zn-Sn) / bronze? (Cu-Sn(-Pb))
 Frequencies: no recordings/no frequency analyses
 Fig.: **Plate 1/8.**

cat. 9.: Pellet bell RRM 77.11.34
 Context: burial 57, horseman and horse, disturbed
 Date: LAP
 Conservation status: complete, rattle body lost
 Decoration: smooth
 Shape: oval, shape VII
 Measurements: dm. 1.8 x 2.8 cm, th. 3.4 cm, hwl. 2.6 cm, wth. 0.5 mm, cw. 1.37 g
 Material: bronze (Cu-Sn(-Pb-Zn))
 Frequencies: no recordings/no frequency analyses
 Fig.: **Plate 1/9.**

cat. 10.: Pellet bell RRM 77.11.33
 Context: burial 57, horseman and horse, disturbed
 Date: LAP
 Conservation status: complete, rattle body lost
 Decoration: smooth
 Shape: oval, shape VII
 Measurements: dm. 1.8 x 2.8 cm, th. 3.3 cm, hwl. 2.4 cm, wth. 0.5 mm, cw. 1.51 g
 Material: bronze (Cu-Sn(-Pb-Zn))
 Frequencies: no recordings/no frequency analyses
 Fig.: **Plate 1/10.**

Locality: Kaposvár, Somogy county

Site: Kaposvár-Toponár-Fészerlak-pusztá, cemetery
 Burials: 176
 Dating: 8th/9th cent. / LAP
 Pellet bells: 2
 Excavations: 1968, 1970–71, 1974–80
 Lit.: Szimonova 1971; Szimonova 1972; Szimonova 1975; Szimonova 1976; Szimonova 1979; Szimonova 1980; Szimonova 1982; Szimonova 1982; Szimonova 1984; Szimonova 1997.

cat. 11.: Pellet bell RRM 76.474.1
 Context: burial 47
 Date: LAP
 Conservation status: complete, 1 slot deformed/cracked, rattle body bronze ball
 Decoration: smooth
 Shape: round-oval, shape I, cross-shaped sound slot, 2 sound holes
 Measurements: dm. 2.6 x 2.7 cm, th. 3.7 cm, hwl. 2.8 cm, wth. 2–3 mm, cw. 22.55 g
 Material: bronze (Cu-Sn(-Pb))
 Frequencies: 1.3–17.2 kHz
 Fig.: **Plate 2/2.**

cat. 12.: Pellet bell, unknown Inv. Nr.
 Context: burial? no information
 Date: LAP
 Conservation status: complete, rattle body pebble (4 mm)

Decoration: vertical grooves on under part
 Shape: oval, shape V, cross-shaped sound slot, 1 sound hole on vertex
 Measurements: dm. 2.2 x 2.4 cm, th. 3.05 cm, hwl. 2.3 cm, wth. 1–2 mm, cw. 14.67 g
 Material: bronze/leaded bronze (Cu-Sn(-Pb))
 Frequencies: 1.1–20.7 kHz
 Fig.: **Plate 2/3.**

Locality: Kaposvár, Somogy county

Site: Kaposvár-61. sz. út
 Burials: 87
 Dating: 9th cent. / LAP
 Pellet bells: 1
 Excavation: 1979–80
 Lit.: Bárdos 1985

cat. 13.: Pellet bell RRM 93.5.65
 Context: burial 82, girl, burial disturbed, no information about position of pellet bell
 Date: LAP, 9th century
 Conservation status: incomplete, 3 holes in body, rattle body lost
 Decoration: sloped grooves on under part
 Shape: oval, shape II, cross-shaped sound slot
 Measurements: dm. 1.9 x 2.2 cm, th. 3.25 cm, hwl. 2.1 cm, wth. 1–2 mm, cw. 10.21 g
 Material: bronze (Cu-Sn(-Pb))
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 2/1.**

Locality: Zamárdi, Somogy county

Site: Zamárdi-Rétiföldek
 Burials: 2368 graves
 Dating: EAP – LAP, 6th–9th century
 Pellet bells: 37
 Bells: 5
 Tutuli: 4
 Excavation: since 1972 continuing
 Lit.: Bárdos & Garam 2009; Bárdos & Garam 2014

cat. 14.: Pellet bell, unknown Inv. Nr.
 Context: grave 97/a, woman, pellet bell at left knee, hanging from the belt with other objects
 Date: LAP, 8th century
 Conservation status: unknown
 Decoration: radial grooves
 Shape: oval? shape II ? cruciform sound slot, 4 sound holes like eyes
 Measurements: dm. ca. 2.6 cm, th. ca. 3.4 cm, hwl. ca. 2.8 cm
 Material: copper alloy
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/1.**

cat. 15.: Bell RRM 84.224.8
 Context: burial 407, mature woman, bell in earth filling
 Date: MAP, 7th century
 Conservation status: complete, rim scraggy, clapper lost

Decoration: smooth
 Type: circular, deformed (Roman bell type III)
 Measurements: dm. 1.95 cm, th. 1.8 cm, hwl. 1.4 cm, wth. 0.5 mm, cw. 4.13 g
 Material: gunmetal (Cu-Zn-Sn)
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/5.**

cat. 16.: Pellet bell, unknown Inv. Nr.
 Context: grave 498, child, sex unknown, infans II, pellet bell between femurs
 Date: MAP – LAP, 7th–8th century
 Conservation status: unknown
 Decoration: 4 ridges on under part
 Shape: oval, shape II, cruciform sound slot, no sound holes
 Measurements: dm. ca. 3 cm x 2.4 cm, th. ca. 3.8 cm, hwl. ca. 2.8 cm
 Material: copper alloy
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/4.**

cat. 17.: Bell, unknown Inv. Nr.
 Context: grave 517, woman, bell on chain fixed on ornamental disc, near left femur
 Date: EAP, 7th century
 Conservation status: unknown
 Decoration: smooth
 Type: base rectangle (Roman bell type 1)
 Measurements: th. 3.6 cm
 Material: copper alloy
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/2.**

cat. 18.: Bell? RRM 247.1.614.1
 Context: burial 614, disturbed, sex unknown, matur/senil, no information about bell's position
 Date: EAP, 6th–7th century
 Conservation status: fragmented. 20% conserved, clapper lost
 Decoration: smooth?
 Shape: circular, deformed
 Measurements: th. 2.3 cm, hwl. 1.4 cm, wth. 0.5 mm
 Material: gunmetal (Cu-Sn-Zn)
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/3.**

cat. 19.: Pellet bell RRM 247.1.792.10
 Context: burial 792, child, feminine, pellet bell near left femur
 Date: MAP, 7th century
 Conservation status: incomplete, 75% conserved, rattle body lost
 Decoration: grooves on under part
 Shape: oval, shape II, cross-shaped sound slot, 2 pairs of sound holes like eyes
 Measurements: dm. 2.5 x 2.15 cm, th. 3.2 cm, hwl. 2.3 cm, wth. 1 mm, cw. 12.85 g
 Material: bronze (Cu-Sn(-Zn-Pb))
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/6.**

cat. 20.: Bell RRM 247.1.960.3
 Context: burial 960, disturbed, human, sex unknown
 Date: EAP– MAP, 6th–7th century
 Conservation status: complete, clapper lost
 Decoration: smooth, 1 hole in body
 Shape: rectangular
 Measurements: l. 2.8 cm, w. 2.4 cm, th. 4.6 cm, hwl. 3.3 cm, wth. 1–2 mm, cw. 19.43 g
 Material: leaded gunmetal? (Cu-Pb-Zn-Sn)
 Frequency: 2.6–21.8 kHz
 Fig.: **Plate 3/10.**

cat. 21.: Pellet bell RRM 247.1.1172.1
 Context: burial 1172, child, sex unknown, pellet bell at the pelvis/chest
 Date: MAP – LAP, 7th–8th century
 Conservation status: incomplete, 1 hole, corroded, rattle body lost/corroded inside?
 Decoration: smooth, one belt around body
 Shape: oval, shape II, cross-shaped sound slot
 Measurements: dm. 3.3 x 2.9 cm, th. 3.15 cm, hwl. 2.9 cm, wth. 1 mm?, cw. 14.39 g
 Material: iron
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/9.**

cat. 22.: Pellet bell, unknown Inv. Nr.
 Context: burial 1273, child sex unknown, pellet bell at the right leg
 Date: MAP – LAP, 8th–9th century
 Conservation status: complete, loop missing, corroded, rattle body pebble?
 Decoration: smooth, corroded
 Shape: oval, cross-shaped sound slot
 Measurements: dm. 2.1 x 2.9 cm, th. 3.1 cm, hwl. 2.85 cm, wth. 1 mm?, cw. 12.54 g
 Material: iron
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/7.**

cat. 23.: Pellet bell RRM 247.1.1304.3
 Context: burial 1304, woman, mature, pellet bell in earth filling
 Date: MAP-LAP, 7th–8th century
 Conservation status: complete, loop missing, rattle body pebble?
 Decoration: smooth, corroded
 Shape: circular, cross-shaped sound slot
 Measurements: dm. 3.0 x 3.05 cm, hwl. 3.0 cm, wth. 1 mm?, cw. 14.38 g
 Material: iron
 Frequency: no recordings/no frequency analyses
 Fig.: **Plate 3/8.**

cat. 24.: 3 pellet bells, unknown Inv. Nr.
 Context: grave 1653, horse, pellet bell at the neck respective skull
 Date: LAP, 8th–9th century
 Conservation status: complete? corroded (?)
 Decoration: smooth
 Shape: shape I

Measurements: dm. 3.6 cm, th. 3.8 cm, hwl. 3.6 cm
Material: iron
Frequency: no recordings/no frequency analyses
Fig.: **Plate 4/1-3.**

cat. 25.: Pellet bell RRM 247.1.1685.3
Context: burial 1685, child, feminine, pellet bell on femurs
Date: LAP, 7th–8th century
Conservation status: complete, rattle body lost/corroded inside?
Decoration: smooth, circular belt
Shape: round-oval, shape I, cross-shaped sound slot, with 4 sound holes
Measurements: dm. 2.6 x 2.7 cm, th. 3.85 cm, hwl. 2.26 cm, wth. 1–2 mm, cw. 22.25 g
Material: leaded bronze/bronze (Cu-Sn-Pb)
Frequency: no recordings/no frequency analyses
Fig.: **Plate 4/4.**

cat. 26.: Pellet bell RRM 247.1.1688.9
Context: burial 1688, child, masculine, infans II, pellet bell in earth filling
Date: LAP, 7th–9th century
Conservation status: incomplete, 1 hole on vertex, rattle body lump of metal?
Decoration: smooth. 2 opposite pairs of indicated eyes (sound holes)
Shape: oval, shape II, simple sound slot, two eyelike sound holes
Measurements: dm. 2.1 x 2.4 cm, th. 3.1 cm, hwl. 2.3 cm, wth. 1–2 mm, cw. 14.04 g
Material: leaded bronze (Cu-Pb-Sn)
Frequency: no recordings/no frequency analyses
Fig.: **Plate 4/6.**

cat. 27.: Pellet bell RRM 247.1.1689.1
Context: burial 1689, youth, sex unknown, infans II, pellet bell near femurs
Date: LAP, 7th–9th century
Conservation status: complete, rattle body bronze ball dm. 5 mm
Decoration: herringbone patterns, horizontal grooves on underpart
Shape: oval, shape II, cross-shaped sound slot, 2 opposite sound holes on upperpart
Measurements: dm. 2.6 x 3.0 cm, th. 3.9 cm, hwl. 2.9 cm, wth. 1–2 mm
Material: leaded bronze (Cu-Pb-Sn)
Frequency: 0.9–22 kHz
Fig.: **Plate 4/7.**

cat. 28.: Pellet bell RRM 247.1.1711.8
Context: burial 1711, woman, adult/mature, pellet bell near left femur
Date: LAP, 7th–9th century
Conservation status: complete, 1 hole in body, rattle body lump of bronze
Decoration: grooves on underpart
Shape: oval, shape IV, cross-shaped sound slot, 2 eyelike sound holes - face

Measurements: dm. 2.05 x 2.65 cm, th. 3.2 cm, hwl. 2.5 cm, wth. 1–2 mm, cw. 18.41 g
Material: leaded bronze? (Cu-Sn-Pb)
Frequency: 2.2–18.4 kHz
Fig.: **Plate 4/5.**

cat. 29.: Pellet bell RRM 247.1.1728.12
Context: burial 1728, woman, adult/mature, pellet bell near left knee
Date: LAP, 7th–9th century
Conservation status: complete, loop lost, rattle body pebble?
Decoration: smooth, corroded
Shape: oval, shape II, cross-shaped sound slot?
Measurements: dm. 2.7 x 3.23 cm, hwl. 3.2 cm, wth. 1 mm?, cw. 17.01 g
Material: iron
Frequency: 4.6–7.2 kHz
Fig.: **Plate 5/1.**

cat. 30.: Pellet bell, unknown Inv. Nr.
Context: grave 1874, woman, adult/mature, pellet bell under left femur near disc
Date: LAP, 8th–9th century
Conservation status: unknown
Decoration: smooth
Shape: round? shape I? cruciform sound slot. 2 sound holes
Measurements: dm. 2.8 cm, th. 4 cm, hwl. 2.6 cm
Material: copper alloy
Frequency: no recordings/no frequency analyses
Fig.: **Plate 4/9.**

cat. 31.: Pellet bell RRM 247.1.1832.4
Context: burial 1832, woman, adult/mature, pellet bell near left knee
Date: LAP, 7th–8th century
Conservation status: incomplete, 75% conserved, rattle body lost
Decoration: smooth, corroded
Shape: oval, shape II?, cruciform sound slot
Measurements: dm. 2.6 x 3.3 cm, th. 3.55 cm, hwl. 2.7 cm, wth. 1 mm?, cw. 10.95 g
Material: iron
Frequency: no recordings/no frequency analyses
Fig.: **Plate 4/8.**

cat. 32.: Bell RRM 247.1.1872.1
Context: burial 1872, young girl, pellet bell near left knee
Date: EAP-LAP, 6th–9th century
Conservation status: loop and clapper lost, rattle bell lost/corroded
Decoration: smooth, corroded, hole on vertex
Shape: rectangle, Fe type rec.
Measurements: dm. 3.4 x 3.5 cm, hwl. 3.8 cm
Material: iron
Frequency: no recordings/no frequency analyses
Fig.: **Plate 5/9.**

cat. 33.: Pellet bell RRM 247.1.1878.3 = RRM 247.1.1877.3

Context: grave 1878, child, feminine, infans II, pellet bell near pelvis

Date: LAP, 7th–8th century

Conservation status: complete, corroded

Decoration: smooth

Shape: oval? shape II?, cruciform sound slot

Measurements: dm: 3 x 3.4 cm, th. 3.8 cm, hwl. 3.4 cm

Material: iron

Frequency: no recordings/no frequency analyses

Fig.: **Plate 5/2.**

cat. 34.: Pellet bell RRM 247.1.1885.1

Context: burial 1885, young adult, feminine, pellet bell near left femur

Date: LAP, 8th–9th century

Conservation status: incomplete, 2 holes in body, rattle body bronze ball inside

Decoration: grooves on underpart

Shape: oval, shape IV, cruciform sound slot, 2 opposite pairs of eyelike sound holes

Measurements: dm. 2.2 x 2.6 cm, th. 3.15 cm, hwl. 2.25 cm, wth. 1–2 mm, cw. 17.57 g

Material: leaded bronze? (Cu-Pb-Sn(-Zn))

Frequency: no recordings/no frequency analyses

Fig.: **Plate 5/3.**

cat. 35.: 5 pellet bells, unknown Inv. Nr.

Context: grave 1900, disturbed, horse

Date: LAP, 8th–9th century

Conservation status: one is complete, two without handle, two fragmented, corroded

Decoration: smooth

Shape: oval? shape, no sound slot

Measurements: dm. ca. 2.8 x 2.6 cm, th. ca. 3.6 cm, hwl. ca. 3 cm

Material: sheet metal, iron

Frequency: no recordings/no frequency analyses

Fig.: **Plate 5/4-8.**

cat. 36.: 4 tutuli, unknown Inv. Nr.

Context: grave 1903, horse, tutuli on breast strap?

Date: LAP. 8th–9th century

Conservation status: unknown

Decoration: smooth

Shape: conical truncated

Measurements: h. ca. 2.6 cm, dm. ca. 1.2 cm

Material: copper alloy - sheet metal

Frequency: no recordings/no frequency analyses

Fig.: **Plate 6/1-4.**

cat. 37.: Pellet bell RRM 247.1.1905.4

Context: burial 1904, child/girl, infans, pellet bell at left femur

Date: LAP, 7th–8th century

Conservation status: complete, filled with material, rattle body lost or inside?

Decoration: smooth, circular belt

Shape: oval, shape I, cruciform sound slot, 4 sound holes

Measurements: dm. 2.6 x 2.8 cm, th. 3.6 cm, hwl. 2.6 cm, wth. 1–2 mm, cw. 26.26 g

Material: leaded bronze? (Cu-Pb-Sn)

Frequency: no recordings/no frequency analyses

Fig.: **Plate 6/5.**

cat. 38.: Pellet bell, unknown Inv. Nr.

Context: grave 1937, empty

Date: MAP – LAP, 7th–9th century

Conservation status: unknown

Decoration: smooth, corroded

Shape: oval? shape II?, cruciform sound slot, 4 sound holes

Measurements: dm. ca. 3.2 x 3.6 cm, th. ca. 4 cm, hwl. ca. 3.6 cm

Material: iron

Frequency: no recordings/no frequency analyses

Fig.: **Plate 6/10.**

cat. 39.: Pellet bell, unknown Inv. Nr.

Context: grave 2088, man, adult/mature, pellet bell near right femur

Date: MAP – LAP, 7th–9th century

Conservation status: unknown

Decoration: smooth

Shape: oval? shape II?, simple sound slot, 2 sound holes

Measurements: dm. 3 x 3 cm, th. 4.2 cm, hwl. 3 cm

Material: copper alloy

Frequency: no recordings/no frequency analyses

Fig.: **Plate 6/8.**

cat. 40.: Pellet bell, unknown Inv. Nr.

Context: grave 2091, horse, pellet bell at breast chest

Date: LAP, 7th–9th century

Conservation status: unknown

Decoration: smooth

Shape: oval? shape II?, simple sound slot, 2 sound holes

Measurements: dm. ca. 3 cm, th. 4 cm, hwl. 3 cm

Material: copper alloy

Frequency: no recordings/no frequency analyses

Fig.: **Plate 6/9.**

cat. 41.: Pellet bell RRM 247.1.2099.1

Context: burial 2099, woman, mature, pellet bell at left leg

Date: LAP, 8th–9th century

Conservation status: complete, 1 hole in body, rattle body pebble

Decoration: 1 groove around body, sloped grooves on under part

Shape: oval, shape IV, cross-shaped sound slot, 1 slot developed, 2 opposite pairs of eyelike sound holes, face

Measurements: dm. 2.15 x 2.7 cm, th. 3.4 cm, hwl. 2.35 cm, wth. 1–2 mm, cw. 21.23 g

Material: leaded bronze? (Cu-Pb-Sn)

Frequency: 2–18.8 kHz

Fig.: **Plate 6/7.**

cat. 42.: Pellet bell, unknown Inv. Nr.

Context: burial 2125, woman, mature, pellet bell near left femur

Date: LAP, 8th–9th century

Conservation status: incomplete, 1 hole in body, rattle body bronze ball or pebble

Decoration: smooth

Shape: circular, shape IV, cross-shaped sound slot

Measurements: dm. 2.25 x 2.3 cm, th. 3.3 cm, hwl. 2.3 cm, wth. 1–2 mm, cw. 13.04 g

Material: leaded bronze? (Cu-Pb-Sn)

Frequency: 1.6–19 kHz

Fig.: **Plate 7/1.**

cat. 43.: Pellet bell, unknown Inv. Nr.

Context: burial 2275, woman, mature, pellet bell near left knee

Date: MAP-LAP, 7th–8th century

Conservation status: complete, filled with material, rattle body must be inside

Decoration: smooth, one belt around body

Shape: circular, shape I, cross-shaped sound slot, but only 1 slot developed well, 4 opposite sound holes

Measurements: dm. 2.6 x 2.6 cm, th. 3.7 cm, hwl. 2.65 cm, wth. 1–2 mm, cw. 23.97 g

Material: bronze/leaded bronze? (Cu-Sn(-Pb))

Frequency: no recordings/no frequency analyses

Fig.: **Plate 7/2.**

cat. 44.: 2 pellet bells or two spherical pendants?, unknown Inv. Nr.

Context: grave 2283, horse, pellet bells by neck of horse?

Date: LAP, 8th–9th century

Conservation status: complete

Decoration: smooth

Shape: oval, shape VII

Measurements: dm. ca. 3.3 x 2 cm, th. ca. 3.9 cm, hwl. 3.6 cm

Material: sheet metal

Frequency: no recordings/no frequency analyses

Fig.: **Plate 7/4-5.**

cat. 45.: Pellet bell, unknown Inv. Nr.

Context: grave 2308, woman, mature, pellet bell by left femur

Date: MAP – LAP, 7th–8th century

Conservation status: complete

Decoration: face

Shape: circular, shape I, cruciform sound slot

Measurements: dm. 2.6 cm, th. 3.4 cm, hwl. 2.3 cm

Material: copper alloy

Frequency: no recordings/no frequency analyses

Fig.: **Plate 7/3.**

cat. 46.: Pellet bell, unknown Inv. Nr.

Context: burial 2349, woman, mature, pellet bell near left femur

Date: MAP – LAP, 7th–8th century

Conservation status: complete, rattle body bronze ball or pebble

Decoration: smooth

Shape: round-oval, shape I, cross-shaped sound slot, 2 opposite sound holes on body wrap near slot

Measurements: dm. 2.5 x 2.6 cm, th. 3.8 cm, hwl. 2.65 cm, wth. 1–2 mm, cw. 21.97 g

Material: bronze? (Cu-Sn)

Frequency: 1.2–17.5 kHz

Fig.: **Plate 8/1.**

cat. 47.: Pellet bell RRM 247.1.2352.2

Context: burial 2352, woman, mature, pellet bell near left femur head, grave disturbed

Date: LAP, 7th–8th century

Conservation status: incomplete, 3 holes in body, rattle body bronze ball

Decoration: smooth

Shape: round-oval, shape I, cross-shaped sound slot, 2 opposite pairs of eyelike sound holes

Measurements: dm. 2.6 x 2.4 cm, th. 3.7 cm, hwl. 2.7 cm, wth. 1–2 mm, cw. 20.47 g

Material: leaded bronze? (Cu-Sn-Pb)

Frequency: 3–17.3 kHz

Fig.: **Plate 6/6.**

cat. 48.: Pellet bell RRM 247.1.2357.9

Context: burial 2357, woman, mature, pellet bell near left knee

Date: MAP-LAP, 7th–8th century

Conservation status: complete, rattle body bronze ball fixed inside (dm. 5 mm)

Decoration: face on one side, with circular grooves

Shape: circular, shape I, cross-shaped sound slot with 2 sound holes

Measurements: dm. 2.6 x 2.6 cm, th. 3.1 cm, hwl. 2.4 cm, wth. 1 mm, cw. 17.13 g

Material: leaded bronze (Cu-Sn-Pb(-Zn))

Frequency: no recordings/no frequency analyses

Fig.: **Plate 8/2.**

cat. 49.: Pellet bell, unknown Inv. Nr.

Context: stray find

Date: MAP-LAP, 7th–9th century

Conservation status: complete, loop broken, rattle body bronze ball

Decoration: smooth

Shape: oval, shape II, cross-shaped sound slot but badly formed, 1 sound hole at slot

Measurements: dm. 2.8 x 3.2 cm, th. 4.5 cm, hwl. 3.4 cm, wth. 1–2 mm, cw. 27.53 g

Material: bronze (Cu-Sn)

Frequency: 0.8–22 kHz

Fig.: **Plate 8/3.**

Locality: Vörs, Somogy county

Site: Vörs-Papkert B

Burials: 716

Dating: 8th/9th–10th century / LAP/Carolingian

Pellet bells: 1

Excavation: 1983–85, 1987–93, rescue excavation

Lit.: Költő 1988; Szentpéteri 1991; Költő et al. 1992; Költő 1993; Szentpéteri 1993; Somhegyi

1995; Takács & Bartosiewicz 1993; Takács & Bartosiewicz 1995; Költő & Szentpéteri 1996.

cat. 50.: Pellet bell RRM 93.233.1

Context: burial 321, no further information

Date: LAP, 8/9th–10th century

Conservation status: complete, rattle body bronze ball

Decoration: smooth

Shape: oval, shape IV, cross-shaped sound slot, 1 sound hole

Measurements: dm. 2.7 x 2.4 cm, th. 3.7 cm, hwl. 2.75 cm, wth. 1–2 mm, cw. 24.56 g

Material: leaded bronze/bronze (Cu-Sn-Pb(-Zn))

Frequencies: 1.6–22.6 kHz

Fig.: **Plate 2/4.**

Locality: Kaposmérő, Somogy county

Site: Kaposmérő-Agyagbánya

Burials: 254

Dating: LAP

Pellet bells: 6 pellet bells, 1 bell

Excavation: 1980, 1985, 1989–1990, rescue excavations

Lit: Varga 2016

cat. 51.: pellet bell

Context: grave 80, horseman and horse, pellet bell probably is part of the horse bridle

Date: LAP

Conservation status: fragmented

Decoration: smooth

Shape: oval, shape VII

Measurements: dm. ca. 2.5 cm, th. ca. 3.1 cm, hwl. ca. 2.8 cm

Material: sheet metal

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 2/5.**

cat. 52.: bell

Context: grave 120, woman, part of the belt ensemble

Date: LAP

Conservation status: complete, clapper?

Decoration: smooth

Type: conical-tutulus shaped, no Roman type

Measurements: dm. ca. 3.1 cm, th. 4.8 cm, hwl. ca. 4 cm

Material: sheet metal

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 2/6.**

Additionally, three pellet bells were found in grave 48 (child), one in grave 231 (child) and another in grave 19 (woman).

Locality: Vörs-Battyáni, Somogy county

Site: Vörs-Battyáni Disznólegelő

Burials: no information

Dating: LAP

Pellet bells: 4 pellet bells

Excavation: 1985–20081

Lit: Költő 2016

cat. 53.: 4 pellet bells

Context: grave 634, near the left knee of the skeleton

Date: LAP

Conservation status: complete (?)

Decoration: one pellet bell displays a cross (x)-shaped, the other two show horizontal grooves

Shape: V

Measurements: no information

Material: 3 Cu alloy pellet bells, one Fe sheet pellet bell

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 9.** (only three pellet bells are shown on this plate, because there was no picture of the iron pellet bell available)²

Locality: Kereki, Somogy county

Site: Kereki-Homokbánya

Burials: 151 graves

Dating: LAP

Pellet bells: 7 pellet bells

Bells: 2 bells

Excavation: 1987–2004³

Lit: László unpublished (2012)

cat. 54.: pellet bell

Context: grave 27, woman, adult, near left femur

Date: LAP

Conservation status: corroded, fragmented

Decoration: none

Shape: shape II

Measurements: dm. ca. 3.1–5.3 cm

Material: Fe sheet

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 10/1.**

cat. 55.: pellet bell

Context: grave 48, child, between femurs

Date: LAP

Conservation status: corroded, fragmented

Decoration: none

Shape: shape II

Measurements: dm. ca. 3.1–5.3 cm

Material: Fe sheet

Frequencies: no recordings/no frequency analyses

Fig.: **Plate 10/2.**

¹ Hungarian National Museum Archaeology Database, <https://archeodatabase.hnm.hu/en/node/56936>, 19 June, 2024.

²All information from László Költő

³ Hungarian National Museum Archaeology Database, <https://archeodatabase.hnm.hu/en/node/56936>, 19 June, 2024.

cat. 56.: bell

Context: grave 53, woman, on head
Date: LAP
Conservation status: complete, clapper lost
Decoration: two horizontal grooves
Type: type 5/var. D
Measurements:
Material: Cu alloy
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 10/3.**

cat. 57.: pellet bell

Context: grave 63, woman, near left hips
Date: LAP
Conservation status: corroded, fragmented, deformed
Decoration: none
Shape: shape II
Measurements: dm. 3.1–3.5 cm
Material: Fe sheet
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 10/4.**

cat. 58.: bell

Context: grave 104/A, no information
Date: LAP
Conservation status: deformed, clapper lost
Decoration: none
Type: type 1
Measurements: no information
Material: Cu alloy
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 11/1.**

cat. 59.: pellet bell

Context: grave 109, man, pellet bell corroded on a chain (chain-armor?)
Date: LAP
Conservation status: deformed
Shape: shape I or II
Decoration: none
Measurements: dm. 3.1–3.5 cm
Material: Fe sheet
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 11/2.**

cat. 60.: 2 pellet bells

Context: grave 115, child, under left hand and near knife
Date: LAP
Conservation status: deformed, corroded, fragmented
Shape: shape I or II
Decoration: none
Measurements: dm. 3.1 cm
Material: Fe sheet
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 11/3.**

cat. 61.: pellet bell

Context: grave 120, woman, near left knee
Date: LAP
Conservation status: deformed, clapper lost
Shape: shape II
Decoration: face, horizontal grooves
Measurements: dm. 2.5 cm
Material: Cu alloy
Frequencies: no recordings/no frequency analyses
Fig.: **Plate 11/4.**

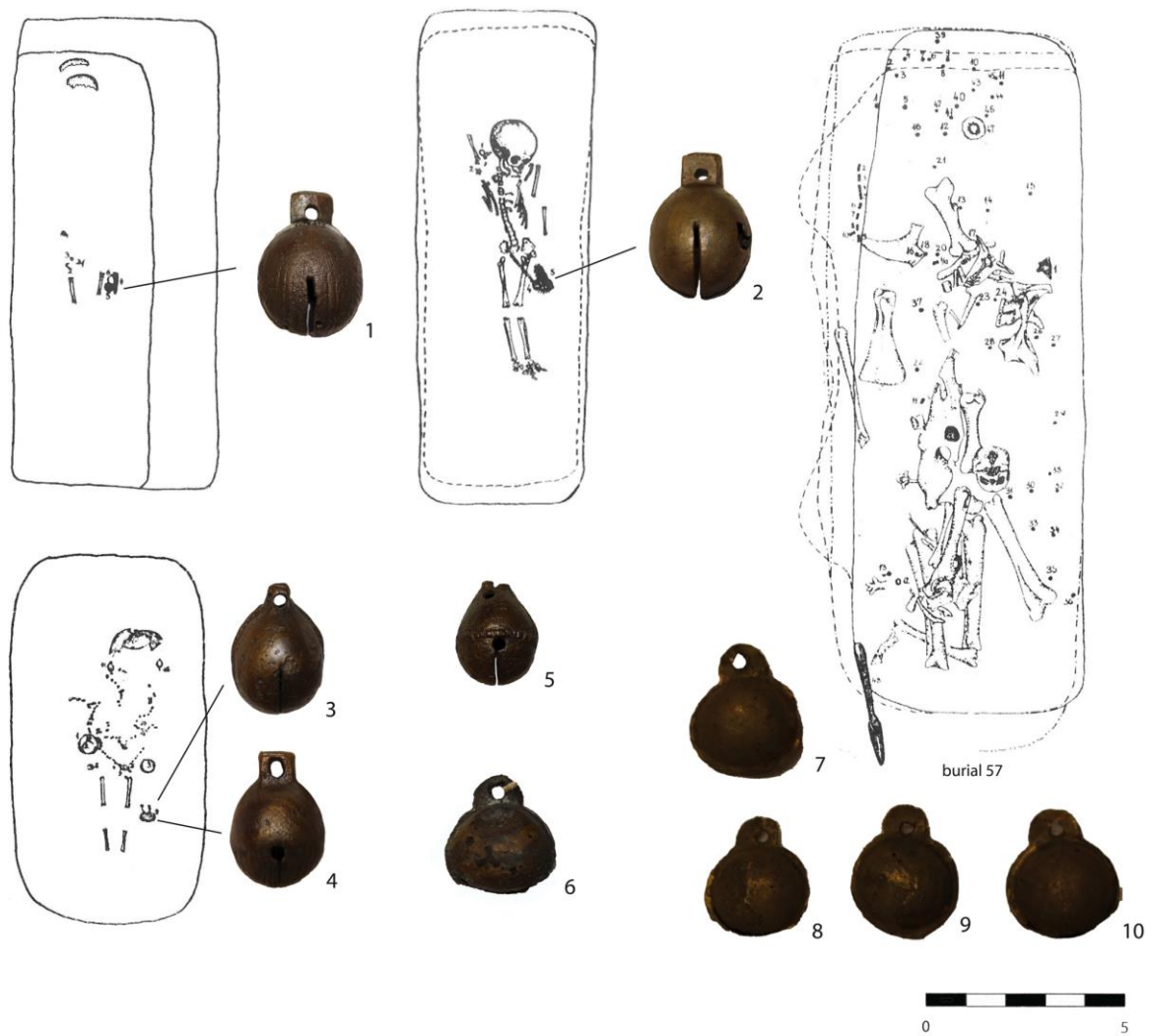


Plate 1.: Pellet bells from the cemetery Kaposvár-Toponár, 40-es őrház (Kaposvár FO 33, 40/a).

1 – burial 18, RRM 76.702.2; 2 – burial 36, RRM 78.27.3; 3–4 – burial 43, RRM 78.31.7 and 78.31.8; 5 – burial 48, RRM 78.35.4; 6 – burial 52, RRM 76.625.11; 7–10 – burial 57, RRM 77.11.32, 77.11.31, 77.11.34 and 77.11.33 (according to Bárdos 1978, 24, 26, 28; photos: by B. M. Pomberger, © Rippl-Rónai Museum Kaposvár).

1. tábla: Csörgők a Kaposvár-Toponár, 40-es őrház temetőben (Kaposvár FO 33, 40/a).

1 – 18. sír, RRM 76.702.2; 2 – 36. sír, RRM 78.27.3; 3–4 – 43. sír, RRM 78.31.7 és 78.31.8; 5 – 48. sír, RRM 78.35.4; 6 – 52. sír, RRM 76.625.11; 7–10 – 57. sír, RRM 77.11.32, 77.11.31, 77.11.34 és 77.11.33 (Bárdos 1978, 24, 26, 28 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

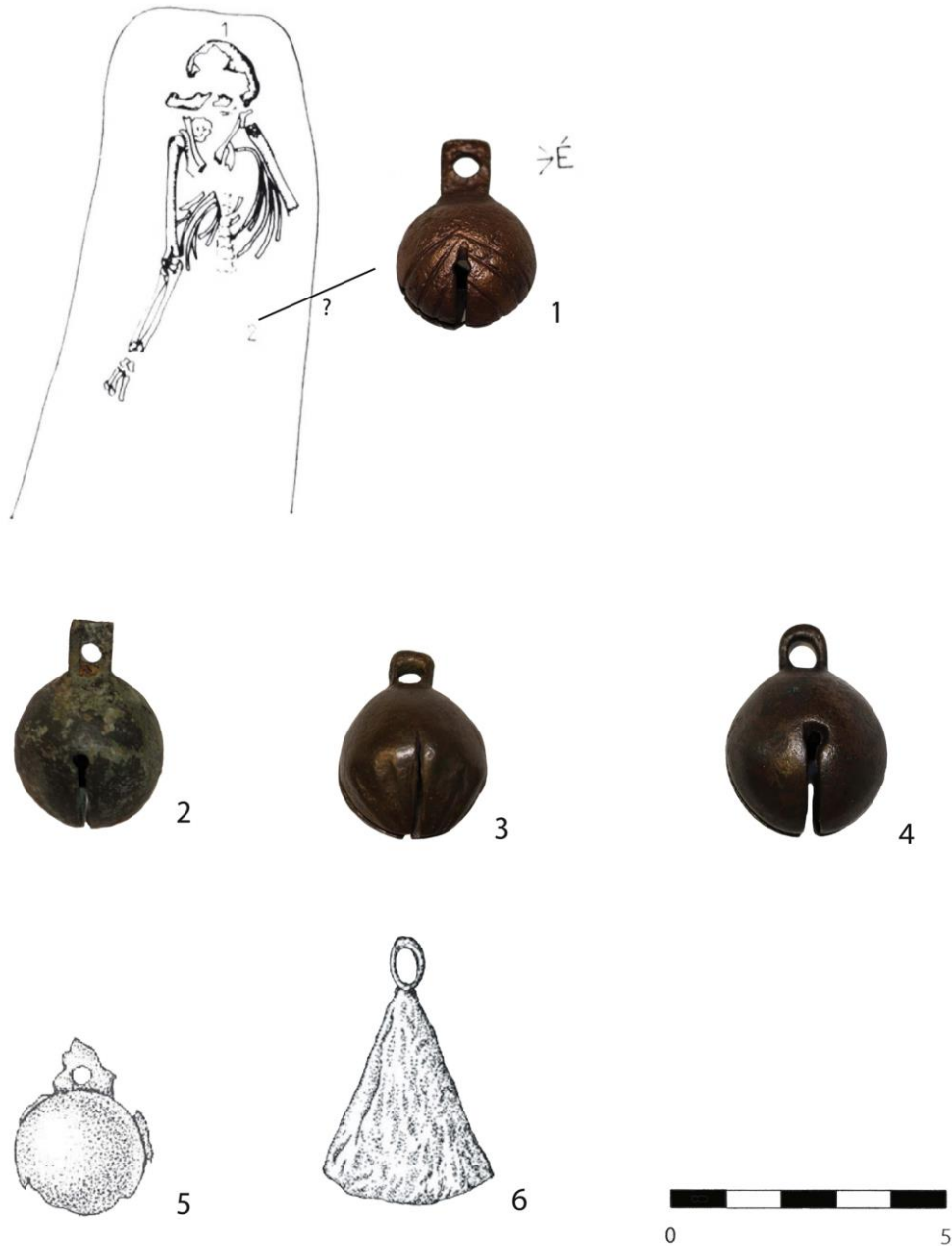


Plate 2.: Pellet bells from the cemeteries Kaposvár-61. sz. út, Kaposvár-Toponár-Fészerlak-puszt, Vörs-Papkert B and Kaposmérő-Agyagbánya.

1 – burial 82, Kaposvár-61. sz. út, RRM 93.5.56; 2 – burial 47, Kaposvár-Toponár-Fészerlak-puszt, RRM 76.474.1; 3 – Kaposvár-Toponár-Fészerlak-puszt; 4 – burial 321, RRM 93.233.1, Vörs-Papkert B; 5 – burial 80, Kaposmérő-Agyagbánya; 6 – burial 120, Kaposmérő-Agyagbánya (according to Bárdos 1985, 41; Varga 2016, pl. 6/32 and pl. 8/9; photos: by B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

2. tábla: Csörgők a Kaposvár-61. sz. út, Kaposvár-Toponár-Fészerlak-puszt, Vörs-Papkert B és Kaposmérő-Agyagbánya temetőikben.

1 – 82. sír, Kaposvár-61. sz. út, RRM 93.5.56; 2 – 47. sír, Kaposvár-Toponár-Fészerlak-puszt, RRM 76.474.1; 3 – Kaposvár-Toponár-Fészerlak-puszt; 4 – 321. sír, RRM 93.233.1, Vörs-Papkert B; 5 – 80. sír, Kaposmérő-Agyagbánya; 6 – 120. sír, Kaposmérő-Agyagbánya (Bárdos 1985, 41; Varga 2016, pl. 6/32 és pl. 8/9 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

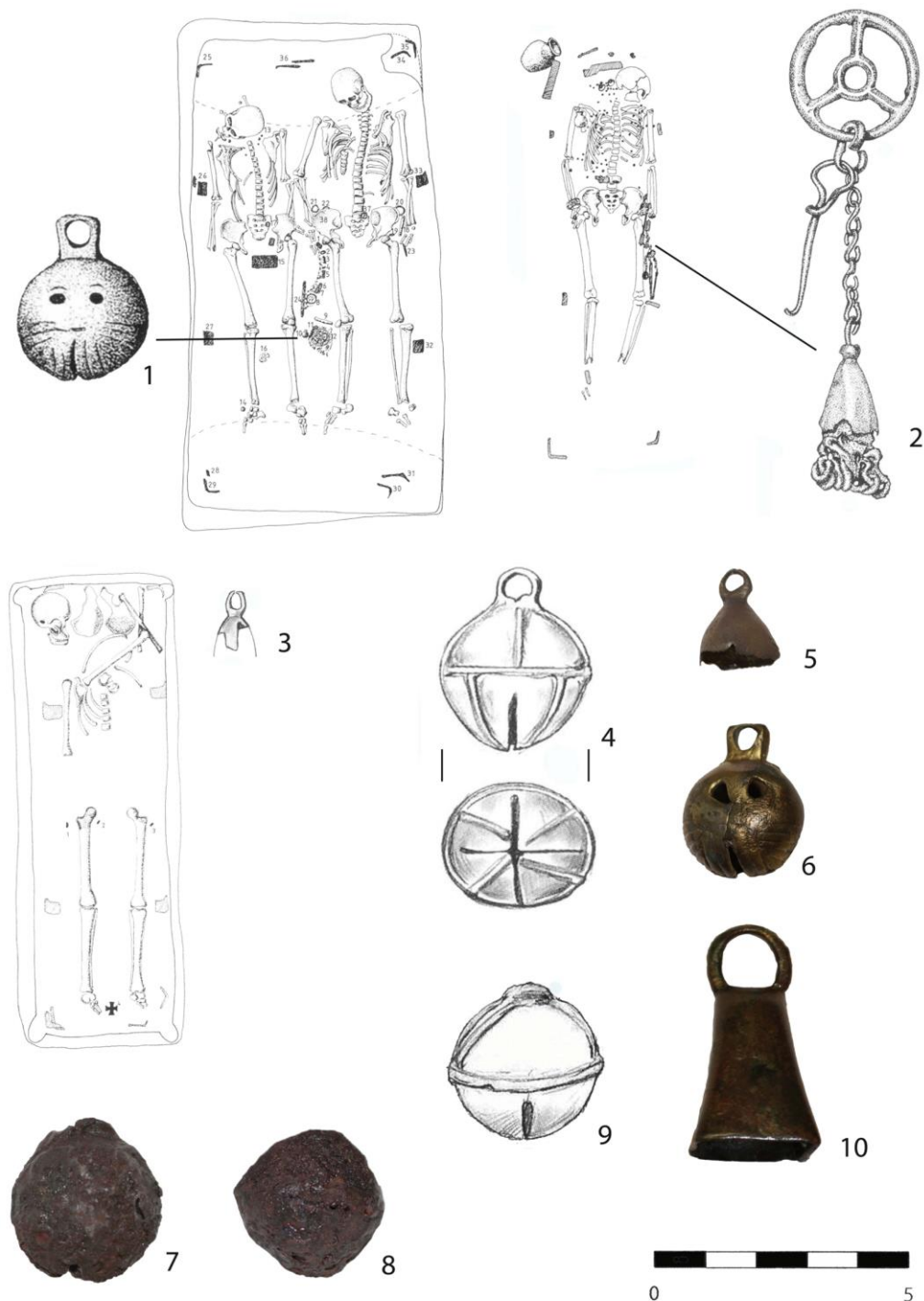


Plate 3.: Pellet bells and bells from the cemetery Zamárdi-Rétiföldek.

1 – burial 97a; 2 – burial 517; 3 – burial 614, RRM 247.1.614.1; 4 – burial 498; 5 – burial 407, RRM 84.224.8; 6 – burial 792, RRM 247.1.792.1; 7 – burial 1273, 8 – burial 1304, RRM 247.1.1304.3; 9 – burial 1172, RRM 247.1.1172.1; 10 – burial 960, RRM 247.1.960.3. (according to Bárdos & Garam 2009, figs. 6, 18, 21, pls. 12/97a/16, 61/498/2, 67/517/5, 77/614/5, 133/1172/2; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

3. tábla: Csörgők és csengők a Zamárdi-Rétiföldek temetőben.

1 – 97a. sír; 2 – 517. sír; 3 – 614. sír, RRM 247.1.614.1; 4 – 498. sír; 5 – 407. sír, RRM 84.224.8; 6 – 792. sír, RRM 247.1.792.1; 7 – 1273. sír, 8 – 1304. sír, RRM 247.1.1304.3; 9 – 1172. sír, RRM 247.1.1172.1; 10 – 960. sír, RRM 247.1.960.3 (Bárdos & Garam 2009, figs. 6, 18, 21, pl. 12/97a/16, 61/498/2, 67/517/5, 77/614/5, 133/1172/2 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

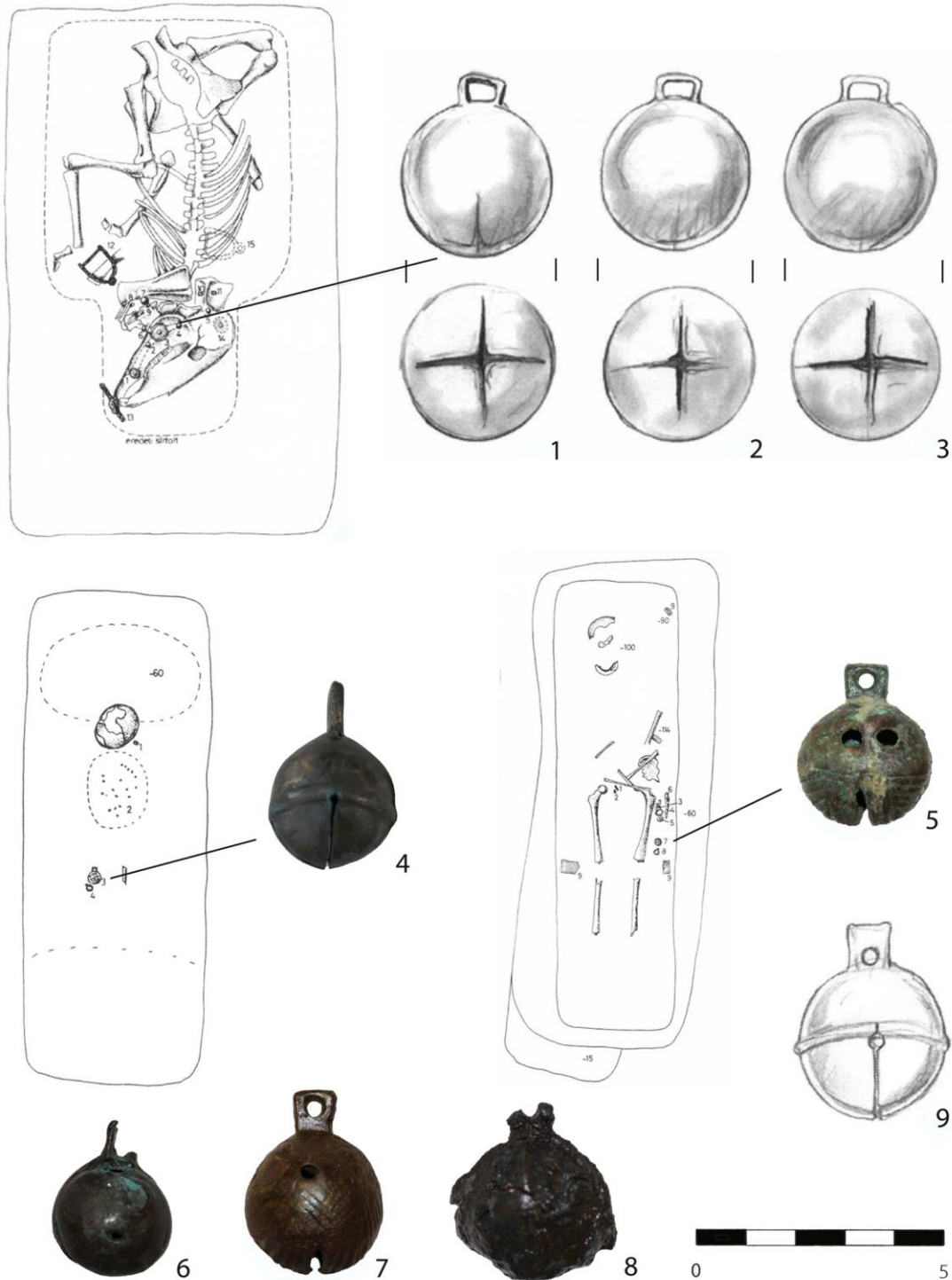


Plate 4.: Pellet bells from the cemetery Zamárdi-Rétiföldek.

1–3 – burial 1653; 4 – burial 1685, RRM 247.1.1685.3; 5 – burial 1711, RRM 247.1.1711.8; 6 – burial 1688, RRM 247.1.1688.9; 7 – burial 1689, RRM 247.1.1689.1; 8 – burial 1832, RRM 247.1.1832.4; 9 – burial 1874 (according to Bárdos & Garam 2014, figs. 16, 19, 21, pls. 182/1653/2–4; 196/1874/8; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

4. tábla: Csörgők a Zamárdi-Rétiföldek temetőben.

1–3 – 1653. sír; 4 – 1685. sír, RRM 247.1.1685.3; 5 – 1711. sír, RRM 247.1.1711.8; 6 – 1688. sír, RRM 247.1.1688.9; 7 – 1689. sír, RRM 247.1.1689.1; 8 – 1832. sír, RRM 247.1.1832.4; 9 – 1874. sír (Bárdos & Garam 2014, figs. 16, 19, 21, pls. 182/1653/2–4; 196/1874/8 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

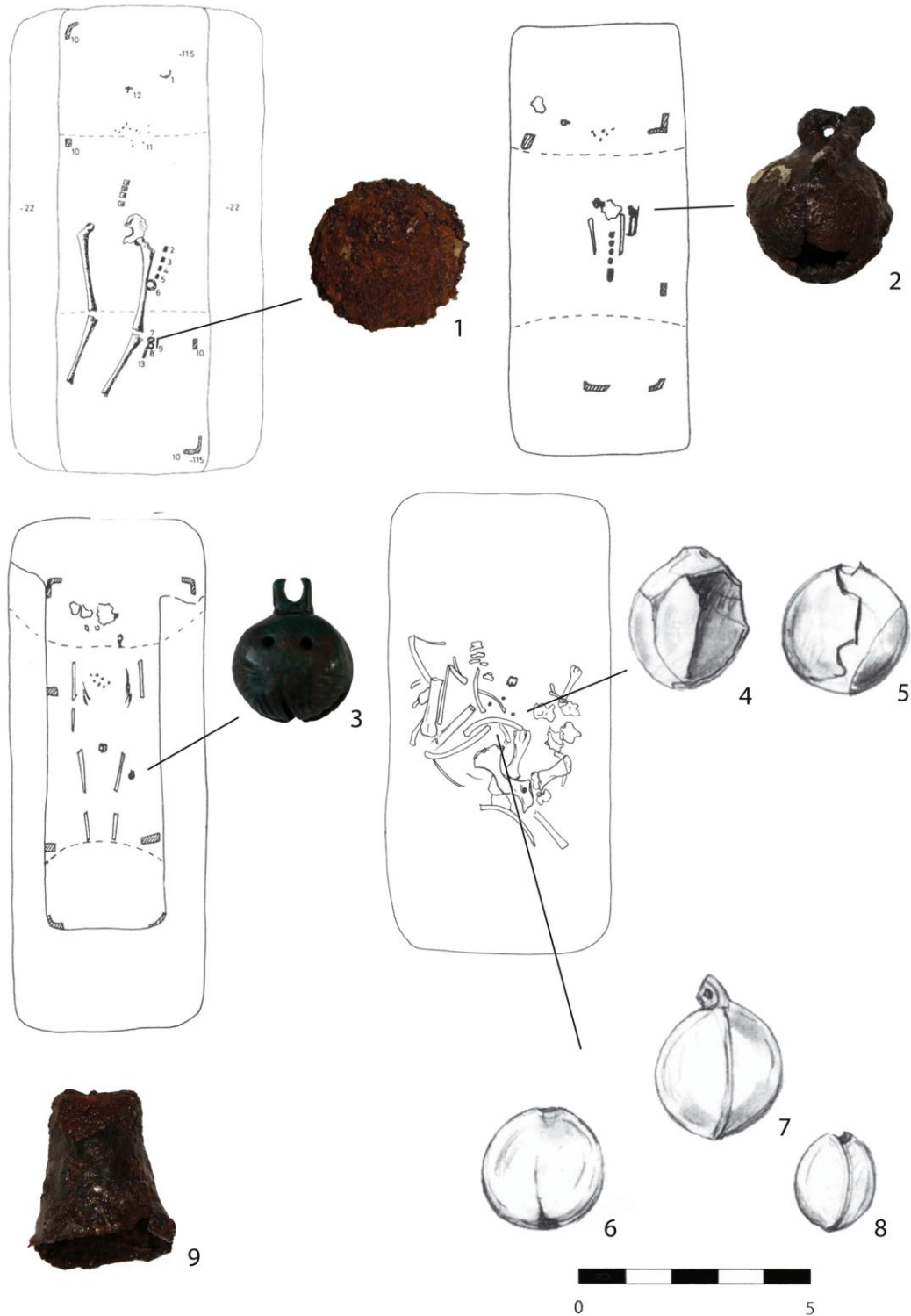


Plate 5.: Pellet bells and bells from the cemetery Zamárdi-Rétiföldek

1 – burial 1728, RRM 247.1.1728.12; 2 – burial 1878, RRM 247.1.1878.3; 3 – burial 1885, RRM 247.1.1885.1; 4–8 – burial 1900; 9 – burial 1872, RRM 247.1.1872.1 (according to Bárdos & Garam 2014, figs. 22, 28, 29, pl. 200/1900/2–6; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

5. tábla: Csörgők és csengők a Zamárdi-Rétiföldek temetőben.

1 – 1728. sír, RRM 247.1.1728.12; 2 – 1878. sír, RRM 247.1.1878.3; 3 – 1885. sír, RRM 247.1.1885.1; 4–8 – 1900. sír; 9 – 1872. sír, RRM 247.1.1872.1 (Bárdos & Garam 2014, figs. 22, 28, 29, pl. 200/1900/2–6 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

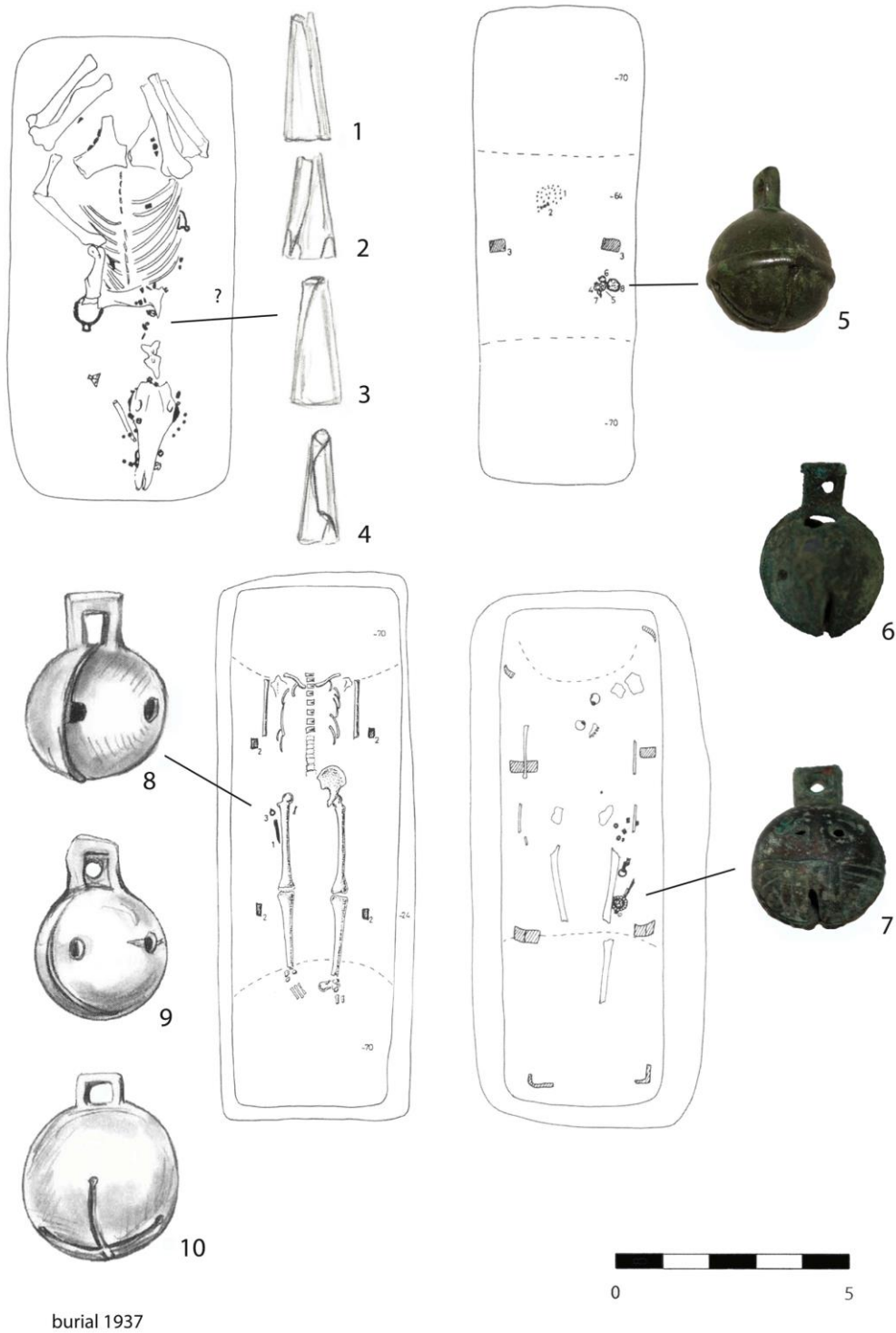


Plate 6.: Pellet bells and tutuli from the cemetery Zamárdi-Rétiföldek

1–4 – burial 1903; 5 – burial 1904, RRM 247.1.1905.4; 6 – burial 2352, RRM 247.1.2352.2; 7 – burial 2099, RRM 247.1.2099.1; 8 – burial 2088; 9 – burial 2091; 10 – burial 1937 (according to Bárdos & Garam 2014, figs. 31, 32, 44, 45, pls. 201/1903/3–6, 219/2088/1, 220/2091/5 and 208/1937/1; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

6. tábla: Csörgők és tutulusok a Zamárdi-Rétiföldek temetőben.

1–4 – 1903. sír; 5 – 1904. sír, RRM 247.1.1905.4; 6 – 2352. sír, RRM 247.1.2352.2; 7 – 2099. sír, RRM 247.1.2099.1; 8 – 2088. sír; 9 – 2091. sír; 10 – 1937. sír (Bárdos & Garam 2014, figs. 31, 32, 44, 45, pls. 201/1903/3–6, 219/2088/1, 220/2091/5 és 208/1937/1 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

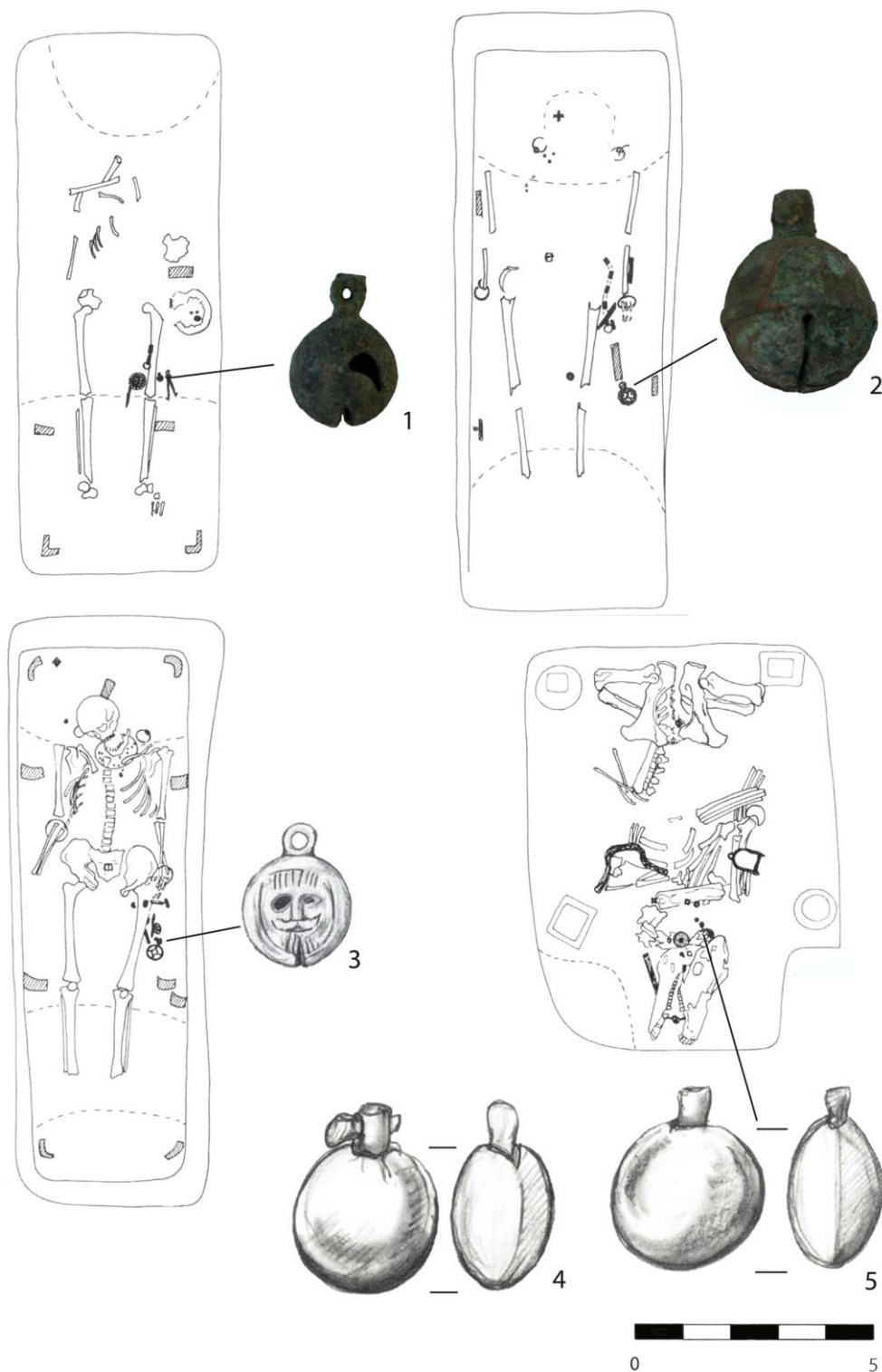


Plate 7.: Pellet bells from the cemetery Zamárdi-Rétiföldek

1 – burial 2125; 2 – burial 2275; 3 – burial 2308; 4–5 – burial 2283 (according to Bárdos & Garam 2014, figs. 47, 57, 59, 64 and pl. 241/2308/8, 236/2283/3–4; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

7. tábla: Csörgők a Zamárdi-Rétiföldek temetőben.

1 – 2125. sír; 2 – 2275. sír; 3 – 2308. sír; 4–5 – 2283. sír (Bárdos & Garam 2014, figs. 47, 57, 59, 64 és pl. 241/2308/8, 236/2283/3–4 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

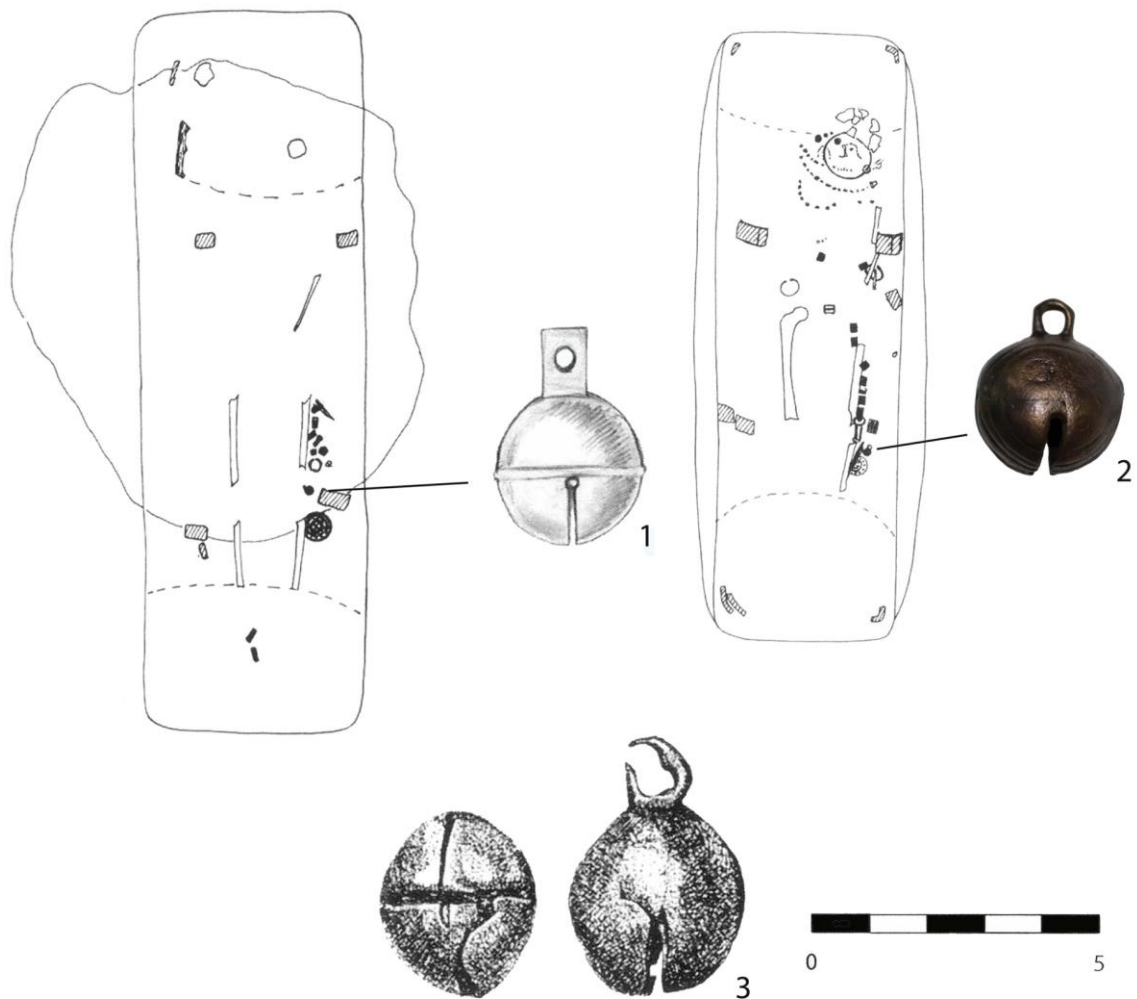


Plate 8.: Pellet bells from the cemetery Zamárdi-Rétiföldek

1 – burial 2349; 2 – burial 2357, RRM 247.1.2357.9; 3 – stray find (according to Bárdos & Garam 2014, figs. 70, 72, pls. 245/2349/2, 251; photos: by B. M. Pomberger, © Rippl-Rónai Museum, Kaposvár).

8. tábla: Csörgők a Zamárdi-Rétiföldek temetőben.

1 –2349. sír; 2 – 2357. sír, RRM 247.1.2357.9; 3 – szórványlelet (Bárdos & Garam 2014, figs. 70, 72, pls. 245/2349/2, 251 nyomán; fotók: B. M. Pomberger, © Rippl-Rónai Múzeum, Kaposvár).

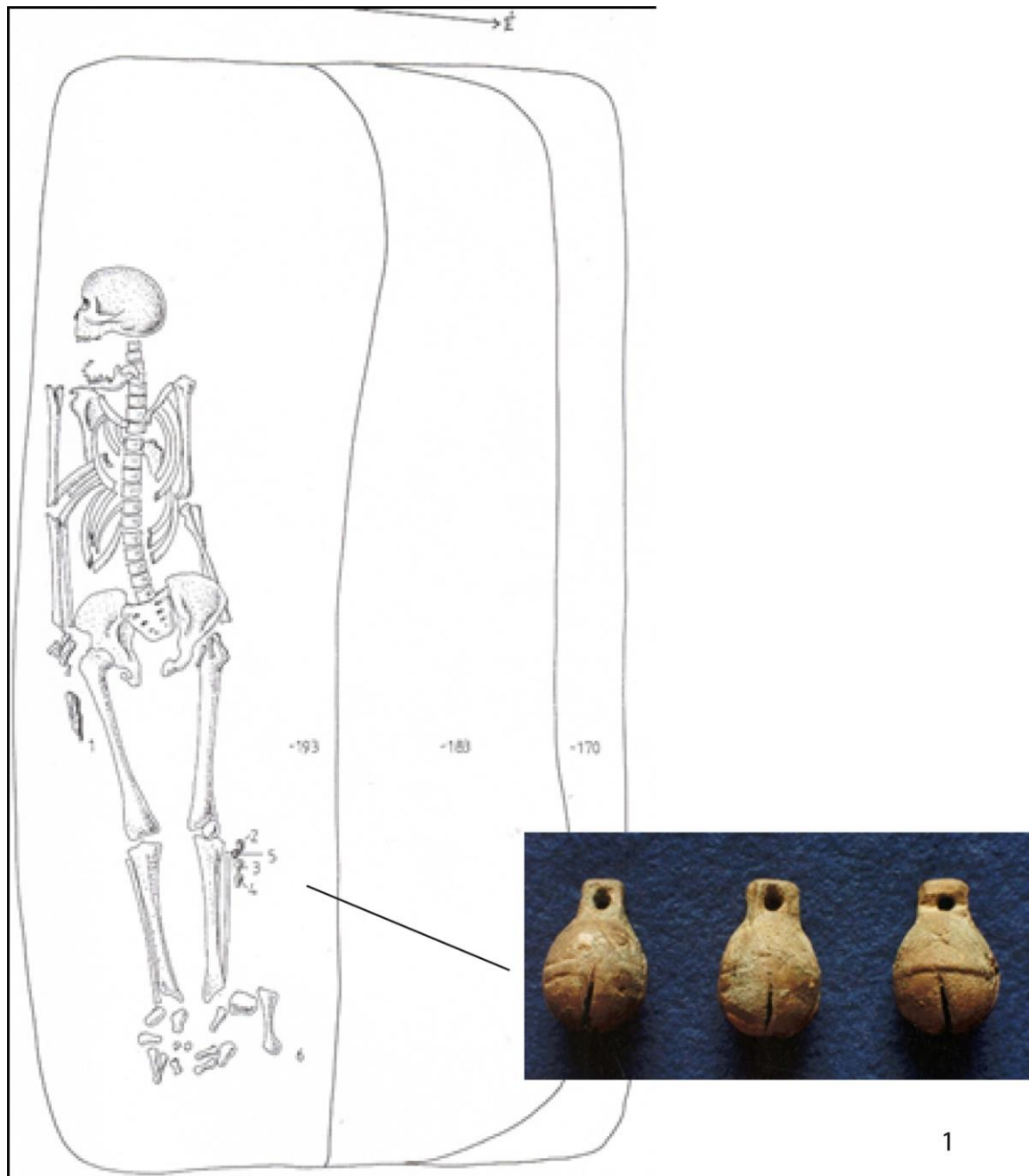


Plate 9.: Pellet bells from grave 634, cemetery Vörs-Battyáni Disznólegelő. (Photos: © Rippl-Rónai Museum, Kaposvár; Drawing of the grave: the authors received from L. Költő without any further information).

9. tábla: Csörgők a Vörs-Battyáni Disznólegelő temető 634. sírjában (fotók: © Rippl-Rónai Múzeum, Kaposvár, a sír rajza Költő Lászlótól származik további információ nélkül)

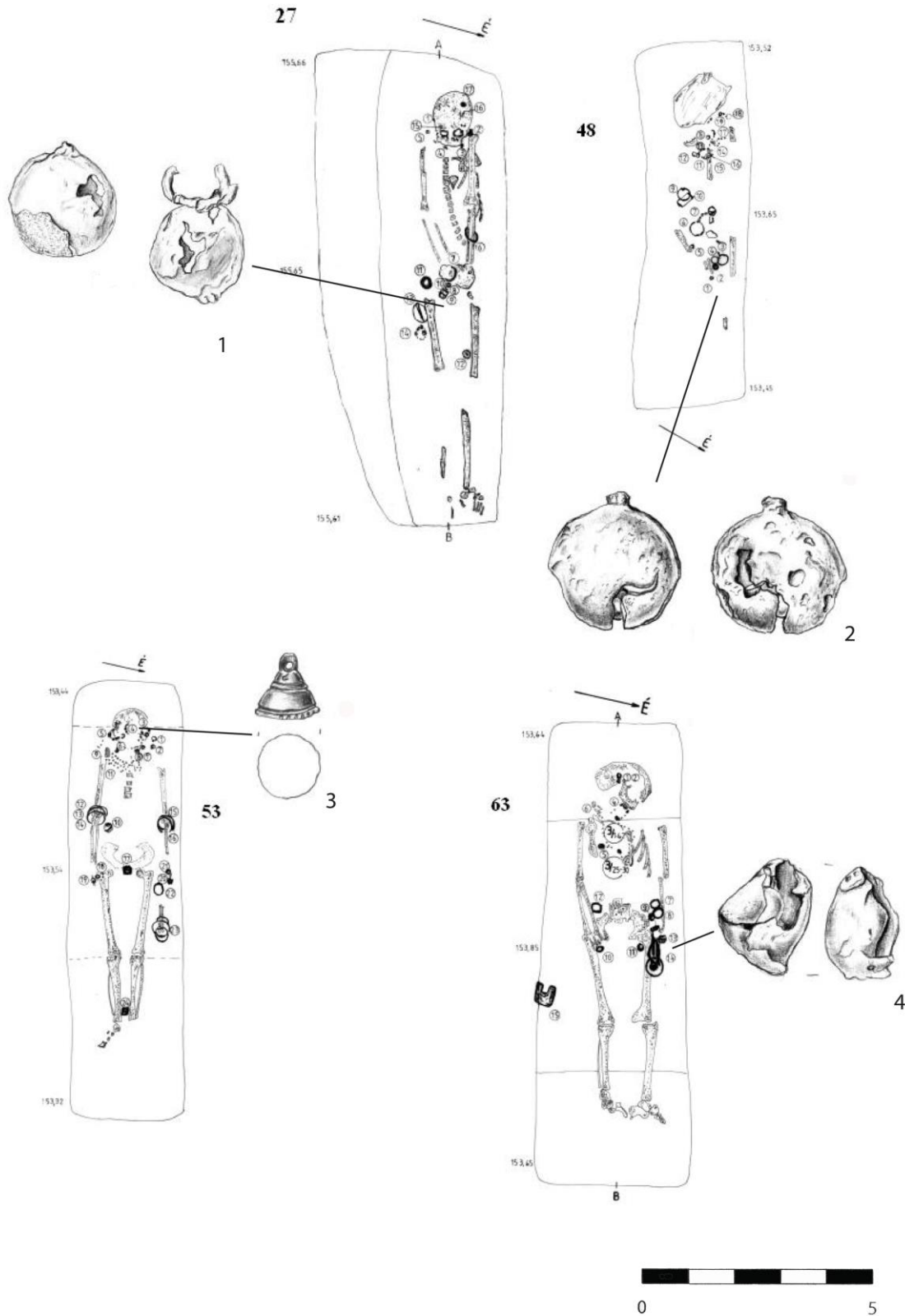


Plate 10.: Pellet bells and bells from the cemetery Kereki-Homokbánya

1 – burial 27; 2 – burial 48; 3 – burial 53; 4 – burial 63 (according to László 2012, pl. 7; 11; 12; 15; 55/13; 65/2; 70/4; 75/19).

10. tábla: Csörgők és csengők a Kereki-Homokbánya temetőben

1 – 27. sír; 2 – 48. sír; 3 – 53. sír; 4 – 63. sír (László 2012, pl. 7; 11; 12; 15; 55/13; 65/2; 70/4; 75/19 nyomán).

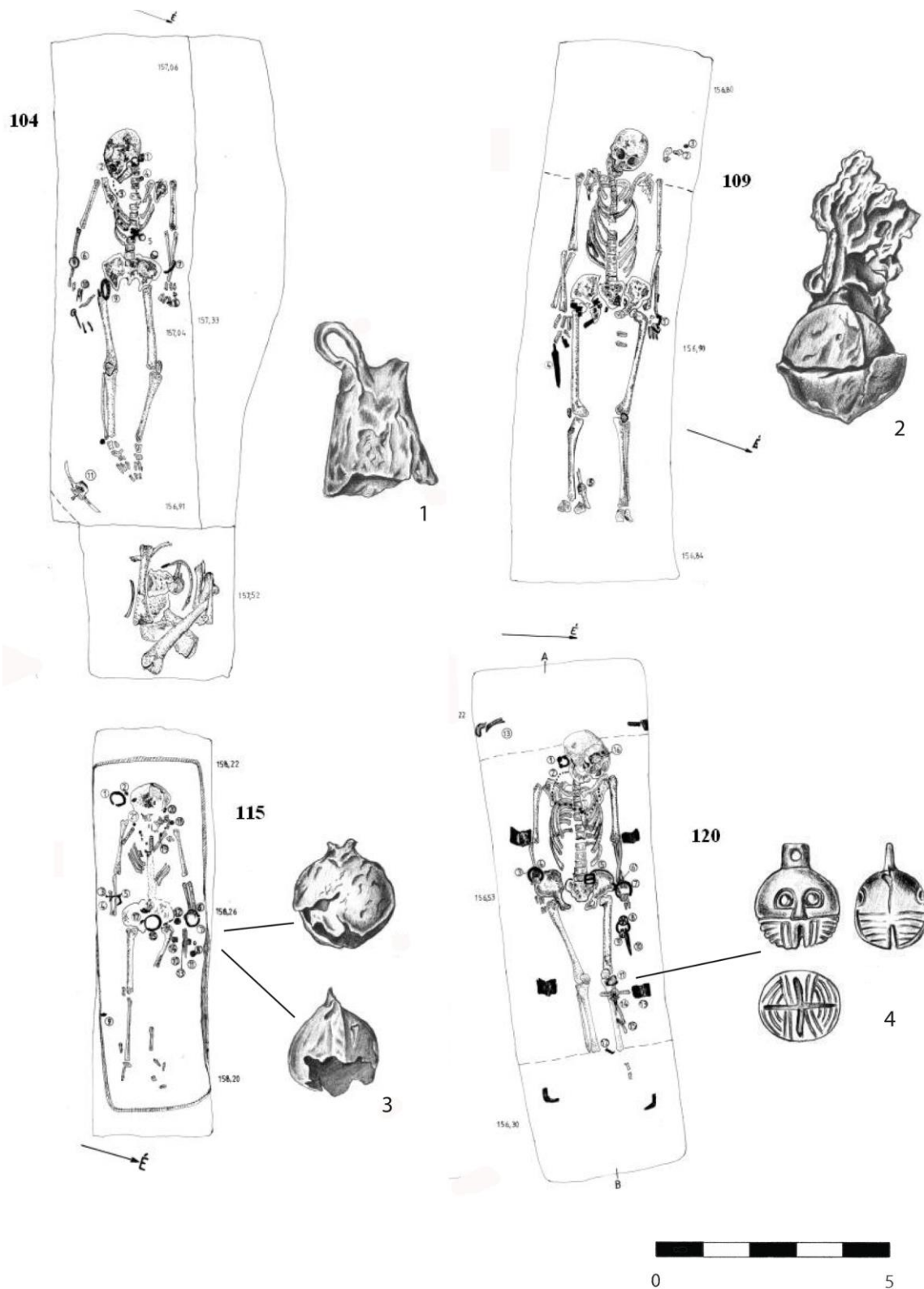


Plate 11.: Pellet bells and bells from the cemetery Kereki-Homokbánya

1 – burial 104A; 2 – burial 109; 3 – burial 115; 4 – burial 120 (according to László 2012, pl. 25; 26; 28; 29; 88/16; 91/1; 94/10; 97/10)

11. tábla: Csörgők és csengők a Kereki-Homokbánya temetőben

1 – 104A. sír; 2 – 109. sír; 3 – 115. sír; 4 – 120. sír (László 2012, pl. 25; 26; 28; 29; 88/16; 91/1; 94/10; 97/10 nyomán)

