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# NEOLITHIC CHILDREN BURIALS AT MORAVIAN SETTLEMENTS IN THE CZECH REPUBLIC

ABSTRACT: Studying the phenomenon of childhood brings on also issues relating to children burial rites in all types of communities. Children burials and children graves are inherent parts of archaeological discoveries made at Moravian settlement agglomerations. In the recent years (1999–2006), extensive archaeological rescue research – especially in Central Moravia – has considerably extended the amount of knowledge on the Neolithic burial rite. Most new findings come from the Linear Pottery Culture period, while the period of the Culture with Stroke-Ornamented Pottery shows constant stagnation, and the Moravian Painted Ware Pottery Culture has yielded only random individual finds. This contribution brings a summary of hitherto discoveries of 20 archaeological sites from Moravia (Figure 1) with finds of skeletal remains of 51 buried children. From the archaeological point of view, there are four categories of children's burials in settlements: Individual children's burials within the settlement structure, mass burials of adults and children, multiple children's burials within the structure, and individual graves. Analyses of burial customs at Neolithic settlements in Moravia show the approach of the community to children and childhood from the point of view of the burial rite and potential social differentiation.

*KEY WORDS: Neolithic – Children's burials – Settlement burial rite – Anthropological characteristics – Moravia – Czech Republic* 

# INTRODUCTION

In Moravia, as well as in Central Europe in general, Neolithic agriculturalists had developed specificities in their cultural manifestations, recorded in the early history of this country and reflected among others in various ways of burying the dead. The Neolithic population lived in Moravia for a period longer than 1,200 years; and there are two known ways of burying in settlements and burial sites in the Moravian Neolithic period.

In 1962, the so far largest Moravian Neolithic burial ground of the Linear Pottery Culture was discovered in Vedrovice (Ondruš 1972), yielding 96 graves with skeletal remains of 60 adult, 15 sub-adult individuals and 21 children (Podborský *et al.* 2002). During the past forty and more archaeological seasons, any other

larger Neolithic burial ground was not discovered (with the exception of the settlement in Těšetice-Kyjovice, Dočkalová, Koštuřík 1996). Only in 2005, a new farreaching discovery of a bi-ritual Linear Pottery Culture burial ground in the area of Kralice na Hané (Šmíd 2006: 106–107) led to a change in interpretation of the Neolithic burial rite in Moravia during the Linear Pottery Culture younger phases, including an answer to the question on the absence of regular necropolises. Another cremation burial ground was discovered in 2006 on the site Brno-Starý Lískovec (M. Přichystal, pers. comm., 2006). The discoveries of skeletal and cremation burial grounds in Kralice na Hané and Brno-Starý Lískovec are comparable to finds of Neolithic burial grounds in the surrounding countries (mainly Germany) - there, settlement necropolises with both cremation and skeletal burials have been found (Hoffmann 1978).



FIGURE 1. Map of the Czech Republic, highlighting Neolithic settlement sites in Moravia.

# ARCHAEOLOGICAL CHARACTERISTICS

# Individual children's burials

# Site: Brno, Komín–Nivy (Brno-město district)

In 2006, the ÚAPP Brno (Institute of Archaeological Heritage Preservation in Brno – Ústav archeologické

památkové péče) carried out rescue research in the settlement at the position called "Nivy", led by M. Přichystal, D. Parma and M. Lečbych. The settlement area was situated on a gentle slope elevated 214–220 m a.s.l.; the site yielded 616 settlement structures from various cultural habitations falling in the Neolithic, Eneolithic and Bronze Age periods



FIGURE 2. General ground-plan of the Neolithic settlement Brno, Komín-Nivky, 2006.



FIGURE 3 a, b. Brno-Komín, 2006. Structure 585, skeleton H800 of a 12-year-old child.

(*Figure 2*). A child's skeleton H800, deposited in NE–SW direction, was found in the irregular oval structure 585 (Linear Pottery Culture). The dead child had been deposited in a special position, its lumbar and sacral parts lying on the flat bottom and the upper part of its body being almost vertical (*Figures 3a, 3b*). The lower extremities were stretched along the SE wall of the pit, the child's arms were stretched along the trunk (*Figures 4a, 4b*). The structure was situated near

the border of a larger construction pit 570, belonging to the Linear Pottery Culture (*Figure 5*). Grave goods were not found, the structure filling yielded only several pottery fragments, providing a preliminary dating of the find to the younger phases of the Linear Pottery Culture.

# Site: Brno–Nový Lískovec (Brno-město district)

In 1971, a child's burial was found in construction pit No. 25





FIGURE 4 a, b. Brno–Komín, 2006. Structure 585, skeleton H800 of a 12-year-old child.



FIGURE 5. Brno-Komín, 2006. Structure 585, Linear Pottery Culture, finding place of children's skeleton H800.

at the location "Pod kamenným vrchem" ("Under the Stone Hill") of a Linear Pottery Culture Neolithic settlement (Geislerová 1994: 19, 33). The child's skeleton was lying at the bottom of the pit in a crouching position, with the head southwards. No grave goods were found. Both drawing and photographic documentation evidently shows that the oval pit with the child had been intentionally deepened into a grave pit of rectangular shape. This has been already the fourth case of identical depositing in an interior grave pit of rectangular shape (Čižmář, Přichystal 2006: 24, fig. 13). Archaeological finds date the grave to the final phase Ib and early phase IIa of the Moravian Linear Pottery Culture (Berkovec 2004: 231–232, fig. 48–49, Geislerová 1994: 38–39, fig. 12–13).

## Site: Brno-Starý Lískovec (Brno-město district)

The ÚAPP Brno, led by M. Přichystal, has been running extensive rescue research since 2005 in a fenced Linear Pottery Culture settlement in the area of Brno–Starý Lískovec (Přichystal 2006). The settlement area was researched in 1971–1972 by Geislerová *et al.* (1987), and the research results were evaluated by various authors (Tichý 1972, Geislerová 1980, Čižmář, Berkovec 2001, Berkovec 2004). The researched area of more than 6 ha yielded six thousand dwelling structures, mostly from the Linear Pottery Culture period. A buried newborn



FIGURE 6. Brno–Starý Lískovec, 2006. Newborn's skeleton H800 in structure 534.

baby was found in structure No. 658 ( $5.7 \times 4.0 \times 0.72$  m), deposited at the bottom in a deeper depression ( $0.9 \times 0.6$  m). Unfortunately, the find situation was intentionally destroyed and therefore exact find circumstances remain unclear. No grave goods were found, and the structure has been provisionally classified as belonging to phase Ib of the Moravian Linear Pottery Culture.

# Site: Brno-Starý Lískovec (Brno-město district)

Ongoing research was continued in 2006 at the settlement in Brno–Starý Lískovec, and three different cases of burials were discovered: a grave of a newborn, an adult individual's grave and a cremation grave.

The newborn's grave H800 was discovered at the bottom of a circular structure 534 (4×4×0.72 m), connected with a large construction pit 535. The child had been deposited in a crouching position on its left side in the SE–NW direction. The head was oriented south-east, the face turned south-west (*Figure 6*). There were some grave goods by the body: two standing ( $\Lambda$ ) millstones and fragments of a pottery vessel under the skeleton.

The cremation burial was discovered in pit No. 2621 of irregular oval shape (0.86×0.76×0.4 m). The cremation laid scattered over the flat bottom of the pit; pieces of daub, pottery and animal bones were along the pit circumference. The finding of the first cremation grave at the Neolithic settlement in Brno–Starý Lískovec has brought on a fundamental change in interpretation of the Neolithic burial rite in Moravia in the Linear Pottery Culture period. After the discovery of the bi-ritual burial ground in the area of Kralice na Hané in 2005, this is the second evidence of cremation burying within an early Neolithic settlement agglomeration.

#### Site: Kralice na Hané (Prostějov district)

During rescue research in the city of Prostějov industrial zone in 2003 (Šmíd 2004), 799 structures from various prehistoric periods were discovered, including those with important habitation of Linear Pottery Culture people.



FIGURE 7. Kuřim, 1996. Drawings of a 9–10-year-old child's burial furnished with pottery.

Structure 548 yielded a buried newborn (Čižmář, Geislerová 2006: 209) and archaeological material dating the Neolithic structure find to the younger phases of the Linear Pottery Culture IIa/b.

# Site: Kuřim (Brno-venkov district)

In 1996, the ÚAPP Brno carried out rescue research, led by M. Bálek, in the location "Záhoří do klínů". A child's burial was found at the settlement edge in pit No. 243. The structure filling over the child skeleton yielded a large concentration of pottery, rubble stone, fragments of daub and charcoals. The child skeleton was lying at the bottom of the structure on its left side in anatomical position, with crouched arms drawn close to the chest (*Figure 7*). The find was dated after the pottery set (*Figure 8*) to phase IIa of the Moravian Linear Pottery Culture (Bálek *et al.* 2000: 8–19).

## Site: Mašovice (Znojmo district)

Rescue research, led by Čižmář, was carried out in 2006 in the area of a family house in Mašovice (Čižmář 2006). Settlement pit No. 821 was discovered at the location "Pšeničné", with a newborn found at the bottom in a shallow depression; it was lying in a strongly crouching position and oriented E-W. The burial was not accompanied by any grave goods. This child burial has been so far the first find of a newborn in a settlement pit in Moravia, and has been provisionally dated to the younger phases of the Moravian Linear Pottery Culture (IIa/IIb).

## Site: Moravský Krumlov (Znojmo district)

In 2002, the ÚAPP Brno carried out archaeological research preceding the construction of a block of flats and underground services. An extensive settlement area from various prehistoric periods was discovered at the location "Zachráněná", with 34 structures. A smaller provisions pit No. 513 yielded scattered remains of a child skeleton, deposited at various depths from the structure surface to its bottom. Fragments of the skull were found at the surface



FIGURE 8. Kuřim, 1996. Pottery finds from pit 234.

of the pit, long bones of the legs were by the bottom. The supposed orientation of the skeleton was E-W, with the head eastwards. The remains are dated to the younger phase of Linear Pottery Culture, i.e. the earliest Neolithic settlement. This child finding can be interpreted as a burial within a settlement structure.

#### Site: Seloutky (Prostějov district)

Research of the location "U planičky" was carried out in 1999 during a new road construction (Čižmář 2000). A small child's burial was found at the bottom of small structure No. 527. The child was lying in a strongly crouching position with the head southwards, and the face to the east (*Figures 9, 10*). The pit did not include any grave goods, but the set of findings from the structure filling has



FIGURE 9. Seloutky, 1999. Burial H1 of a 3-year-old child in structure 527.

dated the find to phase Ib of the Moravian Linear Pottery Culture (Čižmář 2000: 100–101).

# Site: Těšetice–Kyjovice (Znojmo district)

The Department of Archaeology and Museology, Faculty of Arts, Masaryk University in Brno, has been carrying out systematic archaeological research of the Neolithic settlement in Těšetice–Kyjovice since 1960 (*Figure 11*). In 1967, grave H1 was found in a partly filled in structure No. 4 (Moravian Painted Ware Pottery Culture) in section C, square 3. The child skeleton was incomplete and was lying in a nonritual position (Podborský 1973–1974) on its left side.

The ritually buried skeleton H6 was found at the bottom of a corn pit also in 1967. In structure No. 159 from the Moravian Painted Ware Pottery Culture period, section B, squares 2, 3g, a child was lying crouching on its left side, and its skull had been buried separately from the body (Podborský 1969, 1988).

In 1973, a single child skeleton H5 was discovered in settlement pit No. 147 (Culture with Stroke-Ornamented Pottery), section B, squares 15 b, c (Podborský1975–1976). Grave H5/1973 was in a narrow space between inner



FIGURE 10. Seloutky, 1999. Drawing of the structure 527 floor-plan and child's skeleton H1.

palisade grooves. The find situation showed that the child burial had been deposited into an already filled in pit. Eight millstones were deposited over the child's skeleton, and below them – in the depth of 20 cm – there was the incompletely cremated child skeleton, preserved in very bad condition. According to the surrounding burnt clay, the child had probably been cremated on the spot of its deposition (Kazdová 1992). The way of covering the grave with millstones has been designated as a "megalithic" burial.

#### Site: Vedrovice (Znojmo district)

In 1961–1989, the Archaeological Department of the Moravian Museum in Brno carried out systematic research of the Neolithic burial gound "Za dvorem" and the settlement "Široká u lesa" in Vedrovice (Ondruš 1972, 1976). Research results were published (Podborský *et al.* 2002) together with an analysis of the burial rite at "Široká u lesa" (1975–1982). A new analysis has yielded more detailed knowledge on the Linear Pottery Culture burial rite between the phases Ib and IIa (Tichý 1962, Berkovec, Humpolová 2004).

Although the original designations of the burial ground location "Za dvorem" and the settlement "Široká u lesa" have presently been conceived from the archaeological point of view as auxiliary within a single site (Berkovec,



FIGURE 11. Těšetice–Kyjovice, Znojmo district. Central area of the site with 14 graves.

Humpolová 2004), the classification can be considered as valid to this day.

Pit No. 025A yielded a poorly preserved child's burial I/1963 in the depth of 135 cm. The skeleton of a small child



FIGURE 13. Vedrovice, 1969. Pit 038, grave 4 with the skeleton of a 7–8-year-old child.



FIGURE 12. Vedrovice, 1963. Pit 025B, grave 2 with the skeleton of a 5-year-old child.

was in a crouching position on its left side 10 cm above the bottom of the pit. The grave was dated by pottery grave goods to phase Ib of the Moravian Linear Pottery Culture (Ondruš 1972: 32, 27–36, Tab. III).

Another child burial H2/1963 (*Figure 12*) was discovered 25 cm above the bottom of pit No. 025B. The child had been deposited in a crouching position on its left side with the head to the NW and hands placed in front of its face.

A child skeleton H4/1969 was found in pit No. 038 in the depth of 85 cm, lying crouched on its right side with the head to the SE and its right hand supporting the head (*Figure 13*). No grave goods were found.

A child skeleton H5/1971 was lying crouched on its right side with the skull unnaturally tilted backwards (*Figure 14*) at the bottom of pit No. 089 in the depth of 110 cm. There was a small vessel and a flintstone by the child skeleton. The atypical vessel from that grave has not enabled any precise dating (Ondruš 1972: 32, Tab. III).

# Site: Žádovice (Hodonín district)

The Neolithic settlement research in 1986–1987 yielded six structures with evidence of various burial rites. The find of a newborn in pit No. 95 (Čižmář, Geislerová 1998: 67, fig. 9) ranks among individual burials in settlement pits.



FIGURE 14. Vedrovice, 1971. Pit 089, grave 5 with the skeleton of a 6–7-year-old child.

The skeleton was oriented E-W, deposited on its left side, with the head to the east and face towards the north. There were no grave goods, and archaeological finds from the filling have dated the burial to phase Ib of the Moravian Linear Pottery Culture (*Figure 15*).



FIGURE 16. Blučina, 1945. General view of the uncovered triple grave with skeletons of a male, a female and a child.



FIGURE 15. Žádovice, 1986. Drawing of the structure 95 floor-plan with a newborn's burial and a selection of pottery finds.



FIGURE 17. Blučina, 1945. View of the skeleton of a 1.5-year-old child lying between the male and the female.



FIGURE 18. Brno–Komín, 1947. General view of the Linear Pottery Culture triple grave with adult individuals and a child.

#### Mass burials of adults and children Site: Blučina (Brno-venkov district)

The pit with a burial of three Linear Pottery Culture individuals was discovered on 1 March, 1945 when digging military fortifications, in the depth of 290 cm at the foothills of Cézavy near Blučina. At the bottom of an oval pit (*Figure 16*), there was a male lying in upright position on his back, and on his left hand side there was a female in a slightly crouching position on her right side. A small child was lying on its back with its arms along the trunk between the two adult individuals (*Figure 17*) (Desort 1963: 10–11, 108–109). The grave pit further included grave goods; a large set of beads (a necklace being reconstructed from 400 of them), two bladelets, animal bones covered with red ochre and pottery fragments from the grave pit filling have dated the find to phase IIa of the Moravian Linear Pottery Culture.

#### Site: Brno-Komín (Brno-město district)

According to J. Poulík's find report (Poulík 1947), a Linear Pottery Culture structure (220×150 cm), entrenched 20 cm into the loess, was discovered in 1947 during a garden reconstruction in Brno–Komín. The structure included skeletons of three adult individuals and one child (*Figure 18*). The find has not been preserved.

#### Site: Hluboké Mašůvky (Znojmo district)

During rescue research of the ÚAPP Brno in 2003, an area of 0.5 ha with evidence of Linear Pottery Culture settlement at the location "Nivky" was researched. It included a construction complex, house No. VIII and two large pits (Nos. 826 and 654) situated along the longer side of the house. A burial of three individuals was discovered in provisions pit No. 654 ( $2.75 \times 1.5 \times 1.4$  m) (Čižmář 2004: 124, Čižmář, Dočkalová 2004: 41–54). A male was lying in a crouching position on his left side in the middle of the structure in the depth of 60 cm from the surface. Pressed to the northern wall, there was a young female skeleton lying on its left side (second individual). The upper part of the body having been dislocated by small rodents,



FIGURE 19. Hluboké Mašůvky, 2003. View of the young female and adult male skeletons in pit 654.

the exact position of the head and orientation of the face could not be assessed. A grave good was deposited by the female's forearm – a small round vessel with characteristic ornamentation (*Figure 19*). The third individual – a small child skeleton – was found in the depth of some 20 cm above the bottom of the pit (*Figure 20*). The child was lying on its right side with the head oriented eastwards, and the face to the north-east.

The former two individuals were found in a fire horizon with numerous finds of daub, small pieces of charcoal and carbonized caryopsis. It seems that the dead bodies might have been deposited into a partly filled in functional provisions pit, destroyed by fire. Archaeological finds together with the burnt forearm in skeleton No. 2 evidence the possibility of the individuals' death during a huge fire that might have destroyed the house No. VIII as well as three other structures in its close vicinity. The find has been dated to phase IIb of the Moravian Linear Pottery Culture.

#### Site: Krumlovský les (Znojmo district)

Since 1994, research of prehistoric mining areas (Oliva 2005) has been carried out in the area of Moravský Krumlov (Krumlovský les). Obvious evidences of mining come from



FIGURE 20. Hluboké Mašůvky, 2003. View of the third skeleton from pit 654 – a 5-year-old child.



FIGURE 21 a, b. Krumlovský les, 2002. Shaft No. 4. Skeleton of a female with a newborn at the depth of 7 m.

the earlier stage of the Moravian Painted Ware Pottery Culture. In 2002, eight mining shafts were discovered in a cutting ca 16 m long and 2 m wide. In shaft No. 4, a female skeleton ( $5,380\pm50$  BP) was found in the depth of 7 m at the bottom of a recess; it was lying prone with the arms bent over the head (*Figure 21*), and with a newborn's skeleton on its belly. Incomplete remains of a small dog were found above the female's head.

## Site: Těšetice–Kyjovice (Znojmo district)

Between 1968–1989, six graves belonging to the Culture with Stroke-Ornamented Pottery were discovered in the



FIGURE 22. Těšetice–Kyjovice, 1968. Double grave H2 with remains of two individuals.

Neolithic settlement. There were three individual graves – H5/1973, H7/1975, H13/1989, two double graves – H2/1968, H12/1987, and one triple grave – H10/1981.

The double grave H2 (*Figure 22*) was discovered in 1968 at the border of section C and partly also in section D (squares 11h, a) in a settlement pit of  $170 \times 140$  cm. Under the pit surface, there was a male skeleton lying in a crouching position on his left side, while scattered remains of another individual were at the bottom of the pit (Podborský 1973–1974: tab. XIII: 2).

In 1981, triple grave H10 with three individuals was discovered in a settlement pit in section B1, squares 19 g, h (Kazdová, Lorencová 1985). A male skeleton (I) was lying prone, with arms and legs crouched. A female skeleton (II) was in the middle of the pit, with her arms folded on her belly, and her legs stretched over a child's trunk. The child's skeleton (III) was on its right side, with arms and legs strongly bent and drawn close to the trunk (*Figures 23 a, b*).

Grave H12 with remains of several individuals, juvenile and adult, was discovered in 1987 in section A1, square 2g, structure 305 (Kazdová 1989–1990).

In 1992, scattered grave H21 with remains of an adult male, an older child and animal bones was discovered in a disturbed structure within section A4, squares 2-3-4a, b, c (*Figure 24*). The main cumulation of finds was located in the depth of 20 cm below the surface, while the layer between 40–65 cm was without any finds. The remaining finds of skeletal remains were made in the lower layer, at a depth of 85 cm. The original disposition or outline of the grave pit could not be assessed. Separate parts of skeletons were scattered over an oval hollow, 180 cm long and 150 cm wide.

# Multiple children's burials Site: Mikulov (Břeclav district)

A triple children's burial within a smaller settlement structure was discovered in 1970 at the location "Pod liščí



FIGURE 23 a, b. Těšetice-Kyjovice, 1981. Triple grave H10. Male No. 1, female No. 2 and a 7-year-old child No. 3.

skálou" (Unger 1974). The children were deposited at the bottom of the structure in different depths (*Figure 25*). Burial No. I was deposited in a crouching position on its right side and oriented NNW–SSW. The other two burials (Nos. II and III) were deposited on their left side and oriented NNE–SSW. There was a necklace with a fossil near burial No. III and three small vessels – one nearby each dead child. The set of findings from the structure was dated to phase IIa of the Moravian Linear Pottery Culture (*Figures 26*).

# Site: Žádovice (Hodonín district)

The Neolithic settlement agglomeration in Žádovice was discovered during rescue archaeological research in



FIGURE 24. Těšetice–Kyjovice, 1992. Scattered grave H21 with remains of a male and a child.

1986–1987 (Geislerová *et al.* 1987). The site yielded burials in settlement pits, individual burials, as well as multiple children's burials. Buried children were found in different depths, mostly deposited at the bottom of pits and in smaller interior hollows (Čižmář, Geislerová 1998: 42–43), always lying in a crouching position on the side. Direct grave goods were not found. All structures belonged to phase Ib of the Moravian Linear Pottery Culture (*Figures 27, 28*).

Structure 52 was of irregular shape and there were three children buried in the structure filling. Child H1 was lying



FIGURE 25. Mikulov, 1971. Settlement pit with the find of three children in age categories Infans I – Infans II.



FIGURE 26. Mikulov, 1971. Examples of pottery found with the three children buried in the settlement structure.



FIGURE 27. Žádovice, 1986. Neolithic settlement agglomeration – general ground-plan of the site.

crouched on its left side in the northern part of the structure in the depth of 25 cm below the surface. Child H2 was found in the same depth in the eastern part of the structure, lying crouched on its left side under a pottery concentration. The incomplete skeleton of child H3 was found by the southern wall of the structure in a depth of 40 cm (*Figure 29*).

Two children were found in structure 82/100 at a depth of 40 cm below the surface. Child H1 was in a strongly crouching position on its left side (*Figure 30*). The skeleton of child H2 was on its left side, but its lower extremities were damaged during the uncovering of the structure; the child's hands were covered with pottery (*Figure 31*).

Structure 142 yielded two children without any grave goods. The skeleton of child H1 was found 10 cm below the surface, lying on its left side, arms and legs in a crouching position. A large concentration of pottery, animal bones and stones was discovered in the depth of 20 cm. The



FIGURE 28. Žádovice, 1986. Pottery discovered in settlement structures and dated to phase Ib of the Moravian Linear Pottery Culture.



FIGURE 30. Žádovice, 1986. Structure 82/100, graves H1, H2. Skeleton H1 – 7-year-old child.



FIGURE 29. Žádovice, 1986. Structure 52: grave H1, 5–6-year-old child; grave H2, 8-year-old child; grave H3, 1-year-old child.

child's skeleton H2 was lying 30 cm below the surface in a crouching position on its left side.

## **Individual graves**

## Site: Bořitov (Blansko district)

During the Second World War and the construction of the so-called "German highway" in Moravia, numerous archaeological sites were discovered and researched thanks to the memorable research activity of H. Freising. One of them was the site of Bořitov with the find of a skeleton in a Linear Pottery Culture settlement in the position "Býkovky". Although there are no detailed data available on the exact position of this 1–2-year-old child, the oval pit itself was of NE–SW orientation. The only preserved parts of the skeleton were fragments of cranial bones and isolated teeth. The grave was a part of a larger structure No. 15 and belonged to the building complex of one of



FIGURE 31. Žádovice, 1986. Structure 142, grave H2, 6-year-old child.



FIGURE 32. Modřice, 2004. General view of the outstanding children's grave 802/H3.

the long houses. Dating of the grave was done indirectly, classifying it to younger phases of the Moravian Linear Pottery Culture (IIa/IIb).

# Site: Modřice (Brno-venkov district)

In 2004, rescue archaeological research was carried out by the Institute of Archaeological Heritage Preservation in



FIGURE 34. Slatinky, 2002. Child's skeleton H1, aged 10-11 years.



FIGURE 33. Slatinky, 2002. Drawing of the pit with child's skeleton H1.

Brno (ÚAPP Brno) in the industrial zone of Modřice village (Čižmář, Přichystal 2006: 7–37). The settlement consisted of 6 long houses with pole construction, built on ground level and forming a row of NE-SW orientation. In structure No. 796, skeletal remains of a small child were found at the bottom of a grave pit. The skeleton was probably oriented NW-SE and deposited on its left side. The grave was richly furnished with grave goods: three pottery vessels, two spondylus discs, a necklace made of five spondylus beads, a millstone and a spherical grinder (Figure 32). The grave, representing the so-far best furnished individual grave within settlement agglomerations, was a remarkable contribution to the knowledge of individual isolated graves within settlements in Moravia. On the basis of the pottery set, the find was dated to phase Ib of the Moravian Linear Pottery Culture (sub-phases Ib, and Ib<sub>2</sub>).

# Site: Slatinky (Prostějov district)

In 2002, the ÚAPP Brno carried out rescue research in the position "Močilky", led by M. Šmíd (Šmíd 2003: 211–212, Humpola 2007). The most numerous finds were those from the Linear Pottery Culture, representing 53 settlement structures and skeletal graves of a small child and a newborn. Grave H1 was in close vicinity of pit 542.





FIGURE 35. Slatinky, 2002. Drawing of the pit profile with a newborn's skeleton H2.

The child was deposited on its left side in stretched position, oriented NNE–SSW and with grave goods consisting of two vessels (*Figures 33, 45*). A newborn (Grave H2) was found in a small irregular oval hollow, furnished with a spondylus necklace and a large pottery sherd, probably of a spherical vessel (*Figure 35*). Grave H1 belongs to sub-phase Ib<sub>1</sub> of the Linear Pottery Culture and by its dating corresponds to similar finds from Moravian settlements and burial grounds. The newborn's grave H2 is younger and represents one of the few evidences of a burial complex belonging to the younger sub-phase Ib<sub>2</sub>.

#### Site: Těšetice–Kyjovice (Znojmo district)

Altogether 26 Neolithic graves with 28 individuals were discovered at the Neolithic settlement in Těšetice–Kyjovice in the period 1964–2006. Of these, eleven graves with six adult individuals and six children belong to the Linear Pottery Culture period. The first of them, grave H11 with the skeleton of an adult female, was discovered in 1986 (Koštuřík, Lorencová 1989–1990). In 1991–1992, a grouping of eight Linear Pottery Culture graves were discovered (*Figure 36*) (Dočkalová, Koštuřík 1996, Dočkalová 2005). The adult female skeleton H25 was discovered in 2001, and the newborn skeleton H26 in 2006.

Grave H15/1991; section A4, squares 2, 3e: The Linear Pottery Culture grave was disturbed by ploughing, and the



FIGURE 36. Area of section A4 with the location of 8 graves of the Linear Pottery Culture, discovered in 1991–1993 at Těšetice–Kyjovice.



FIGURE 37. Těšetice-Kyjovice, 1991. Grave H15, 9-10-year-old child.



FIGURE 38. Těšetice-Kyjovice, 1991. Grave H17, 9-10-year-old child.

exact circumference of the grave pit could not be assessed. The child was lying in a crouching position on its left side, the skeleton was incomplete and damaged (*Figure 37*).

Grave H17/1991; section A 4, square 4b, c: The Linear Pottery Culture grave did not differ from the surrounding ground, it was of roughly oval shape, with scattered fragments of bones and teeth on its surface (*Figure 38*).

Grave H22/1992; section A 4, square 4d: The Linear Pottery Culture grave was recognized one year after uncovering during revision of the ground; children teeth and small bones were found in pole pit No. 823. A damaged children skeleton was on its left side in a crouching position, without any grave goods.

Grave H23/1992; section A 4, squares 3–4d, e: The Linear Pottery Culture grave was neighbouring grave H22 nearby pole pit No. 830. The grave (110 cm long, 73 cm wide) contained the skeleton of a child, lying partly on its belly and on the left side, with the head intentionally turned to the south-west. In front of the skeleton by its forearm, there was an incomplete vessel and a stone; behind the skeleton by its back, there was a stone mat with traces of red ochre and a stone pebble (*Figures 39a, b*).

Grave H26/2006; section B4, square 9h, structure 713: Linear Pottery Culture grave with a child's skeleton (*Figure* 40). The newborn was lying on its left side in a crouching position, its bent arms deposited in front of the chest.

From the point of view of relative chronology, the group of graves from Těšetice–Kyjovice represents the second largest necropolis of phase Ib in Moravia (after Vedrovice).



FIGURE 39 a, b. Těšetice–Kyjovice, 1992. Grave H23 and drawing of a 4-year-old child.

With regard to archaic pottery, mainly the bottom part of a bottle from H18 and the sherd of the spherical pottery vessel from grave H23, the group can be dated to sub-phase Ib<sub>1</sub>.

#### Site: Vedrovice (Znojmo district)

Grave H3/1966 was deposited near pit 055 on loess subsoil in the depth of 50 cm. The child's skeleton was lying crouched on its left side with the head westwards, hands in front of the face, without any archaeological finds.

When uncovering section S32/1972, a disturbed children grave H6/1972 was found in the depth of 0.30 m. The skeleton was on its left side in a crouching position, and the skull was crushed. Animal bones and pottery fragments were scattered over the skeleton.

A newborn's skeleton was lying crouched on its left side in oval-shaped grave H7/1972; there were no archaeological finds.

Remains of a child were identified during laboratory work on grave H8/1974. It was a find from section S21, but the position of bones is unknown. The burial was most probably without grave goods.



FIGURE 40. Těšetice–Kyjovice, 2006. Grave H26 of a newborn aged 8–9 months.



FIGURE 41. Velatice, 2006. View of the uncovered surface of the site.

# Site: Velatice (Velký Široký)

In 2006, the ÚAPP Brno led by P. Kos carried out rescue research preceding the construction of family houses in the area of the communication "Velký Široký" (*Figure 41*). A child's burial K800 was found in one of the interior hollows of structure 725 (dimensions  $8.0 \times 7.0 \times 0.46$  m). The child was on its right side in a crouching position (*Figures 42a, b*), oriented SE–NW. The burial can only be dated provisionally to phases Ib–IIa of the Moravian Linear Pottery Culture.

# Site: Žádovice (Hodonín district)

Structure 237 yielded a child with a partly disturbed skeleton and damaged right part of the face. The child was lying prone, with arms stretched along the trunk and stretched legs. Calcareous sinter was preserved on the pelvis and lower extremities, and river shells on the chest. There were large animal bones, pottery and daub fragments at the border of the pit. The exact position of the structure within the researched area as well as the find situation is unclear.

# ANTHROPOLOGY OF NEOLITHIC CHILDREN

## Material

There were skeletal remains of altogether 51 children from 20 sites available for anthropological analysis (*Figure 1, Tables 1, 2*). The degree of preservation of skeletal material varied – there were completely preserved skeletons, as well as incomplete ones. Some skeletons were represented by individual isolated bones or unidentifiable fragments. For that reason, the state of preservation limited the possibilities of anthropological analysis.

## Methodological approach

Skeletal material was examined according to morphological features and the degree of evolution of morphoscopic

features, the study of skeletal finds and classification of bones followed standard anthropological methods recommended by the Group of European Anthropologists (Ferembach et al. 1980). For biological age assessment in children and juvenile individuals, the degree of teeth eruption according to Ubelaker (1978) was used; also the growth and evolution of children's skeletons (Ferembach et al. 1980, Schwartz 1995) and the length of long bones (Stloukal, Hanáková 1978, Fazekas, Kósa 1978) were examined. For metric processing of skeletal material, the set of measurements by Martin, Knussman (1988) was used; measured by standard methods according to Olivier (1969). Sex in children was not determined. For working reasons, the examined individuals were divided into categories according to their age: Infans I (up to 6 months of age), Infans II (6 months to 6 years), Infans III (7-10 years), Juvenis I (10–15 years).

# Individual children burials

Brno-Komín (H 800/2006)		12 years
Brno-Nový Lískovec (1971)		3-5 years
Brno-Starý Lískovec (2005)	4-5 months	
Brno-Starý Lískovec (2006)	6 months	
Kralice na Hané (2003)		1 year
Kuřim (1996)		9-10 years
Mašovice (2006)	3–5? months	
Moravský Krumlov (2002)		9 years
Seloutky (1999)		3 years
Těšetice–Kyjovice (H1/1967)		2 years
Těšetice–Kyjovice (H6/1967)		5-6 years
Těšetice–Kyjovice (H5/1973)		? years
Vedrovice (1/1963)	6-8 months	
Vedrovice (2/1963)		5 years
Vedrovice (4/1963)		8 years
Vedrovice (5/1963)		6-7 years
Žádovice (95/1986)	6-8 months	
Altogether	5 newborns	12 children

TABLE 1.	Survey of sites and examined skeletons (LPC - Linear Pottery Culture,	SPC - Stroke-Ornamented
Pottery Cu	ulture, MPPC – Moravian Painted Pottery Culture).	

Sito	Crovo No	Age		
Site	Grave No.	LPC	SPC	MPPC
Blučina	triple-burial 1945	child		
Bořitov	1940	14 years		
Brno–Nový Lískovec	pit 25/1972	3-5 years		
Brno-Komín	triple-burial 1947	1.5 years		
Brno-Komín-Nivy	str.585/800/2006	12 years		
Brno-Starý Lískovec	str.658-K410/800/2005	4–5 months		
Brno-Starý Lískovec	str.534-K800/2006	6 months		
Hluboké Mašůvky–Nivky	str.654-H2/2003	13–15 years		
Hluboké Mašůvky–Nivky	str.654-H3/2003	5 years		
Kralice na Hané	str.548/2003	1 year		
Krumlovský les	KH2b/2002			newborn
Kuřim	str.243/1999	9–10 years		
Mašovice	pit 821/2006	3–4 months		
Mikulov	triple-burial 1970	3children		
Modřice	str. 796-H802/2004	newborn		
Moravský Krumlov	pit 513/2002	9 years		
Seloutky	K527-H1/1999	3 years		
Slatinky–Močílky	H1/2002	10–11 years		
Slatinky–Močílky	H2/2002	6–9 months		
Těšetice–Kyjovice	str.4-H1/1967			2 years
Těšetice–Kyjovice	H 2/1968		10-15 years	
Těšetice–Kyjovice	H5/1973		5 years ?	
Těšetice–Kyjovice	KH6/1967		•	5–6 years
Těšetice–Kyjovice	H10/1/1981		7 years	
Těšetice–Kyjovice	H 12/1987		child	
Těšetice–Kyjovice	KH15/1991	inf III		
Těšetice–Kyjovice	KH17/1991	9–10 years		
Těšetice–Kyjovice	H 21/1992	8–10 years		
Těšetice–Kyjovice	H22/1993	4 years		
Těšetice–Kyjovice	H23/1993	4 years		
Těšetice-Kyjovice	H26/2005	8–9 month		
Vedrovice	I/1963	6–9 months		
Vedrovice	II/1963	5 years		
Vedrovice	3/1966	6–7 years		
Vedrovice	4/1969	8 years		
Vedrovice	5/1971	6–7 years		
Vedrovice	6/1972	3 years		
Vedrovice	7/1972	newborn		
Vedrovice	8/1974	newborn		
Velatice-Velký Široký	str.725-K800/2006	2 years		
Žadovice	str.52-H1/1986	5-6 years		
Žadovice	str.52-H2/1986	8 years		
Žadovice	str.52-H3/1986	1 year		
Žadovice	str.82-H1/1986	7 years		
Žadovice	str.82-H2/1986	2 years		
Žadovice	str.95-H237	7 years		
Žadovice	str.95-H1/1986	newborn		
Žadovice	str.142-H1/1986	4 years		
Žadovice	str.142-H2/1986	6 years		
20 SITES	49 GRAVES	51 CHILDR	EN	





FIGURE 42. Velatice, 2006. Structure 725 with the skeleton of a 2-year-old child.

**Brno, Komín–Nivy – structure 585, grave 800/2006**: A very well preserved child's skeleton with the skull, mandible (*Figure 43*) and postcranial skeleton. The child was 144 cm tall. From the medical point of view, the skeleton showed neither injury nor cause of death. There were *cribra orbitalia* in the left orbit, the surface of the right orbit was covered with sinter. Teeth were healthy, with no caries. According to the degree of permanent  $M_2$  teeth eruption, of epiphyses and long bones symphysis, the child died at the age of 12. Anthropometric characteristics: dolichocrany, orthocrany, acrocrany, eurymetopic, leptoprosopy, lepteny, mesoconchy, chamaerrhiny, ortostaphyliny, dolichostenomandibular. Postcranial skeleton: Weak pilaster, platymeric, eurycnemic.

**Brno,** Nový Lískovec – pit 25/1971: Skeleton of a 3–5-year-old child; its present-day location is unknown. The find has been mentioned here because of its unusual way of burying, described in field documentation.

*Brno, Starý Lískovec – structure 658/2005*: The skull of a newborn (4–5 months) with a braincase of typical size, mesocrany (78.9), metriometopic (68.6). Cranial bones do not show any upper sagittal bipariation, the vertex is not closed, the open shape without connection by *fonticuli* 



FIGURE 43. Brno–Komín 2006. Grave H800, lateral view of the skull of a 12-year-old child.

*uranii* is conserved. Postcranial skeleton: No pilaster, platymeric, eurycnemic.

*Brno, Starý Lískovec – structure 534/2006*: The only preserved remains of a 6-month-old newborn were germs of 12 milk teeth – 7 from the maxilla and 5 from the mandible; of the skeleton – fragments of ribs and parts of long bones diaphyses.

*Kralice na Hané – structure 548/2003*: The preserved parts of the skeleton of a one-year-old child ( $\pm 4$  months) were fragments of the frontal and occipital bones, 14 isolated deciduous dental crowns, two permanent crowns. The postcranial skeleton was incomplete, fragmental. Preserved parts of the lower extremities were long bones, femoral diaphyses.

**Kuřim – structure 243/1999**: The preserved parts of the skull of a 9–10-year-old child were the left part of the calvarium, composed of the frontal, parietal, temporal bones and numerous fragments. Isolated teeth included 4 deciduous and 11 permanent ones, 5 upper and 6 lower permanent teeth. The postcranial skeleton was incomplete, not suited for anthropometric measurements.

*Mašovice – pit 821/2006*: Incomplete skeleton of a newborn (aged 3–4 months?); cranial remains – small fragments of cranial bones, left orbit; postcranial skeleton – incomplete parts of long bones – humerus, femur, tibiae.

*Moravský Krumlov – pit 513/2002*: The skeleton of a nine-year-old child was scattered over the whole contents of the pit, some parts of the skeleton were missing. Only the edge of the occipital bone with a part of *sutura lambdoidea* was found of the skull. Of the postcranial skeleton – a part of the left humerus, diaphyses of the forearms and of the lower extremities with a weak pilaster, eurycnemic.



FIGURE 44. Těšetice–Kyjovice, 1967. Grave H1, lateral view of the skull of a 2-year-old child.



FIGURE 45. Těšetice–Kyjovice, 1967. Grave H6, lateral view of the skull of a 5–6-year-old child.

**Seloutky – structure 527/1999**: The preserved parts of a three-year-old child's skeleton included a calvarium – hyperdolichocrany (68.8), a maxilla with 5 deciduous teeth, a mandible with 7 teeth, 2 isolated crowns of permanent teeth M1. Exterior parts of both orbits (the right one being only partly preserved) showed trabecular form of *cribra orbitalia*. The postcranial skeleton was represented by remains of incomplete long bones from upper and lower extremities and a fragment of the pelvis.

*Těšetice–Kyjovice – grave H1, structure 4/1967* (Podborský 1973–1974): Skeleton of a two-year-old child with a very well preserved skull and mandible (*Figure 44*). The vertex still shows an opening due to unfinished symphysis of the frontal bone and occipital bones. In the maxilla there are 6 deciduous teeth and a germ of the permanent  $M_1$  crown, in the mandible there are 8 deciduous teeth and, identically, the crown of  $M_1$  is present on the left side. Anthropometric characteristics: brachycrany, hypsicrany, tapeinocrany, hyperchamaerrhiny, orthognathy. Postcranial skeleton: pilastric (100), eurymeric, eurycnemic (78.3). The child was ca 74 cm tall (Olivier 1969).

*Těšetice–Kyjovice – grave H5/1973*: According to the description (Podborský1973–1974) the children's skeletal grave was that of a probably five-year-old child; preserved only in fragments, a part of the skeleton being destroyed by fire.

**Těšetice–Kyjovice – grave H6/1967**: The skeleton of a 5–6-year-old child was buried separately from the skull (Podborský 1969). Neither the skull nor the mandible (*Figure 45*) showed any traces of damage or cutmarks. Nine deciduous teeth were preserved in the maxilla and mandible, but there were no permanent teeth crowns germs. *Cribra orbitalia* of type I were found in the left orbit, the right one was not preserved. The child's vertebral column was not complete and any intentional separating of the spine

and skull could not be identified in the cervical vertebrae. Almost all diaphyses of long bones from the upper and lower extremities were preserved (stature 110 cm); of the hand bones, there were metacarpi, proximal, medial and distal phalanges. Anthropometric characteristics: dolichocrany, stenometopy, hyperletoprosopy, hypsiconchy, leptorrhiny.

*Vedrovice – pit 025A/H1/1963*: Incomplete skeleton of a small, 6–8-month-old child; only fragments of the skull, with marked *cribra orbitalia* all over the left orbit surface (the right one is missing). The postcranial skeleton is fragmentary, with the exception of iliac bones – ilium, ischium and diaphyses of the femur and tibiae.

**Vedrovice – pit 025B/H2/1963**: The skull of a small, five-year-old child was missing the face, only a part of the calvarium was preserved, formed by parietal, temporal bones, and the occipital one. There was a caries in the  $m_2$  of the maxilla; in the left side of the mandible there were 3 deciduous and one permanent teeth ( $M_1$ ). The right lower extremity bones were missing, only iliac bones were represented – the ilium, ischium and parts of diaphyses of the postcranial skeleton: platymeric, eurycnemic. Stature: ca 110 cm.

*Vedrovice – pit 038/H4/1969*: A well-preserved postcranial skeleton with a damaged skull of a 7–8-yearold child, 126 cm tall. Of the skull, only the calvarium was preserved, the face and the skull base were missing. In the left side of the maxilla, there are 3 deciduous and 3 permanent teeth, and the germ of the second molar crown; in the mandible, there are 6 deciduous and 5 permanent teeth. Preserved parts of the postcranial skeleton include the right upper extremity (humerus, ulna, radius), the damaged left lower extremity and the complete right one – femur, tibiae, fibula: platymeric, eurymeric, eurycnemic.



FIGURE 46. Vedrovice, 1971. Grave H5, lateral view of the skull of a 6–7-year-old child.



FIGURE 47. Hluboké Mašůvky, 2003. Grave H654, lateral view of the skull of a 5-year-old child.

*Vedrovice – pit 089/H5/1971*: A quite well preserved skull (brachycrany 80.2), but incomplete skeleton of a small child. The skull of the 6–7-year-old child has a vaulted front, round occiput and individual teeth including 11 deciduous ones, upper and lower, as well as 6 permanent teeth – 3 upper and 3 lower ones (*Figure 46*). According to the length of the upper and lower extremities' long bones, the stature of the child was 98 cm, the bones show weak pilaster, they are platymeric, eurycnemic.

**Žádovice – structure 95/1986**: The skeleton of a very small child HI without lower extremities. Only a fragment of the skull base and two petrosal bones were preserved from the skull. The germs of deciduous teeth  $m_1$ ,  $i_2$ ,  $i_1$  and crowns of upper incisors show that this is a newborn aged  $6\pm 3$  months.

# Mass burials of adults and children

Blučina (1945)		1.5 years	1 male, 1 female
Brno-Komín (1947)		child	1 male, 1 female
Hluboké Mašůvky (2003)		5 years,	
		13-15 years	1 male
Krumlovský les (2002)	0-1 months		1 female
Těšetice-Kyjovice			
(H10/1981)		7 years	1 male, 1 female
Těšetice-Kyjovice			
(H12/1987)		juvenile	adult
Těšetice-Kyjovice			
(H21/1992)		8-10 years	1 male
Altogether	1 newborn	7 children	10 adults

**Blučina – triple grave, 1945**: The specific way of depositing the child in stretched position together with two adult individuals represents a quite unique case from

the point of view of the burial rite. This triple grave find is described merely on the basis of photographic and drawing documentation, since the anthropological material has been lost in the course of WW II events.

**Brno – Komín – triple grave, 1947**: The anthropological report of J. Chochol (1955) states: The skeleton of an elderly male had a deformed skull, and the postcranial skeleton showed a marked muscle relief. The second skeleton was more gracile, the skull showed a preserved metopic suture, the female's stature was 150 cm. The child's skeleton: The skull as well as the skeleton corresponded to the age of a small child; the skull showed a preserved part of the metopic suture. The child died at the age of 1.5 years.

Hluboké Mašůvky – triple grave, 2003: The adult male (No. 1) died at the age of 20-25 years, he was 166.8 cm tall. The sub-adult female skeleton (No. 2) has a preserved metopic suture on the skull. Anthropometric characteristics: mesocrane, eurymetopic, chamarprosope, mesorrhine, leptostaphyline (Figure 47). Postcranial skeleton: platymeric, mesocnemic, stature 141 cm. According to the length of the femur and tibia, the age was assessed to be 13-14 years (Stloukal, Hanáková 1987) and, according to the teeth eruption, a slightly higher age of 14–15 years was assessed (Ubelaker 1978). Skeleton No. 3 was that of a small, five-year-old and 111 cm tall child. The calvarium was reconstructed - hyperdolichocrany (67.8). In the fragments of the maxilla and mandible, there were erupted crowns of permanent  $(M_1, M_1)$  and deciduous  $(m_1, m_2)$ teeth, corresponding to the assessed age (Ubelaker 1978). Postcranial skeleton: platymeric, eurycnemic.

*Krumlovský les – shaft 4/2002*: A female and a newborn. The female skeleton was well-preserved, she had died at the age of 25–30 years. The newborn was 7–9-month-old.



FIGURE 48. Žádovice, 1986. Grave H82, lateral view of the skull of a 7-year-old child.



FIGURE 49. Slatinky, 2002. Grave H1, lateral view of the skull of a 10–11-year-old child.

**Těšetice-Kyjovice – triple grave H10/1981**: Skeleton No. 1 – very robust male, aged 30–35 years. Skull with a glabella of the 3rd degree and marked muscle insertions in the occipital area. Skeleton No. 2 – elderly female, aged 45–55 years, medium robust, with a marked relief in the occipital area. Skeleton No. 3 – 7-year-old child, 107 cm tall. The left side of the child's skull was damaged, the skull base was completely missing, an *os incce* developed in the occipital area. The skull is hyperdolichocrane (68.4), there are 10 preserved upper and lower deciduous teeth, 15 permanent teeth – 7 upper and 8 lower ones. From the postcranial skeleton, mostly diaphyses of lower extremities were preserved, showing a weak pilaster, platymeric, platycnemic.

*Těšetice–Kyjovice – grave H12/1987*: The grave contained bone fragments of several individuals, juvenile and adult (Kazdová 1989–1990). Cranial bones were most frequently represented with those of the parietal and occipital parts. On the long bones (humerus, femur, tibia, fibula), there were spiral fractures, traces of cutting and beating. The bones surface was covered with calcareous sinter proving that the interferences had to be made before the burying of the individuals.

*Těšetice–Kyjovice – grave H1/1992*: Scattered remains of an adult male and a child. Secondarily disturbed remains of two individuals were elevated from the pit. Only the postcranial skeleton of the adult male (30–40 years) was preserved; of the child, there was a part of parietal bones corresponding to the age of 8–10 years and all that remained of the postcranial skeleton was the right femur.

# Multiple children burials

Mikulov (1970)	3 children
Žádovice (52/1986)	5-6 years, 8 years, 1 year
Žádovice (82/1986)	7 years, 2 years
Žádovice (142/1986)	4 years, 6 years
Altogether	10 children

*Mikulov – triple grave, 1970*: The skeletons of three children can only be identified after photographic and drawing documentation (Unger 1974), since present-day location of the material is unknown. The burial of three children in the age of Infans I – Infans II constitutes an interesting fact.

Žádovice – structure 52/1986 with three children: HI - skeleton of a five-year-old child. The skull (Figure 51, dolichocrany 71.8) was coloured in ochre, 4 deciduous incisors and 5 deciduous teeth had damaged dental enamel, dental crowns showed marked wearing due to intense use. The first molar and the crown of the second one were based in the jaw. The postcranial skeleton was incomplete, preserved diaphyses of long bones were damaged in the distal part. Anthropometric characteristics: no pilaster, platymeric. HII - skeleton of an eight-year-old child, damaged. The skull was preserved only as the calvarium, the right maxilla and three parts of the mandible. The child's dental crowns showed marked traces of wear and tear, especially in deciduous teeth. The postcranial skeleton was not complete, preserved in fragments. HIII - skeleton of a very small, one-year-old child. According to isolated



FIGURE 50. Vedrovice, 1966. Grave H3, lateral view of the skull of a 9-year-old child.



FIGURE 51. Velatice, 2006. Grave H800, lateral view of the skull of a 2-year-old child.

germs of deciduous teeth, the child might have reached the age of 9–10 months; only small splinters of the skeleton were preserved.

Žádovice – structure 82/100/1986 with two children: Skeleton HI was the best preserved skeleton in the whole settlement and belonged to a seven-year-old child, 123 cm tall. Cribra orbitalia were found in the orbits ceilings, especially in the left one (anaemia, growth stress), and all the 17 deciduous teeth showed marked traces of wear and tear on dental crowns. A part of the metopic suture was preserved on the frontal bone, the front was vertical, the occiput was round (Figure 48). Anthropometric characteristics: dolichocrany, metrimetopy, chamaeprosopy, hypsiconchy, mesoconchy/sin., chamaerrhiny. The following bones of the postcranial skeleton were preserved: thoracic bones, ribs, upper extremities, phalanges, three parts of the ilium and diaphyses of long bones without any developed pilaster, platymeric, eurycnemic. Skeleton HII was that of a two-year-old child; only a very gracile part of the calvarium, a part of the mandible and the upper part of the postcranial skeleton were preserved.

**Žádovice – structure 142/1986** with remains of two children HI, HII. The incomplete skeleton of a child aged 3.5 years, with a part of the calvarium, the mandible and marked abrasion in four deciduous teeth of the left side of the mandible. Only parts of long bones were preserved of the postcranial skeleton. A six-year-old child skeleton HII, with a damaged right part of the face. The whole spinal area was covered with sinter. The postcranial skeleton was preserved mainly as long bones of the upper and lower extremities: without any developed pilaster, platymeric, eurycnemic.

## **Individual graves**

Bořitov (1940)		14 years
Modřice (2004)	5 months	
Slatinky (1/2002)		10-11 years
Slatinky (2/2002)	6–9 months	
Těšetice–Kyjovice (15/1991)		9-10 years
Těšetice–Kyjovice (17/1991)		9-10 years
Těšetice–Kyjovice (22/1992)		4 years
Těšetice–Kyjovice (23/1992)		4 years
Těšetice–Kyjovice (26/2006)	8–9 months	
Vedrovice (H3/1966)		9 years
Vedrovice (H6/1972)		3 years
Vedrovice (H7/1972)	6–9 months	
Vedrovice (H8/1974)	4-5 months	
Velatice (2006)		2 years
Žádovice (1986)		6 years
Altogether	5 newborns	10 children
-		

**Bořitov – 1940**: There is no detailed information on the 14-year-old child burial. Only four isolated dental crowns and a fragment of the skull were preserved of the skeleton.

*Modřice – K 802/2004*: A child – newborn, aged 3-5 months. The cranial vault, germs of 8 isolated deciduous teeth (3 of the maxilla and 5 of the mandible), and a fragment of *os petrosa* were preserved of the skull. The remaining skeleton was represented by several incomplete bones of the lower extremities.

*Slatinky* – *H1/2002*: The child aged 10–11 had a preserved calvarium – dolichocrany (71.5). Both the

maxilla and mandible showed bilaterally erupted first and second molars; in the mandible, second permanent molars had only bases of dental crowns. The teeth were in good condition, without caries. The postcranial skeleton was not complete: medium pilaster, eurymeric, eurycnemic (*Figure 49*).

**Slatinky – H2/2002**: A newborn aged 6–9 months. Preserved parts of the newborn's head included the frontal bone with the metopic suture, the right parietal bone and two parts of the occipital bone. There were only three long bones of the child's postcranial skeleton – the femur and two tibiae.

*Těšetice–Kyjovice – grave H15/1991*: The incomplete and damaged skeleton of a sub-adult individual who died at the age of 9–11 years. Both the skull and the postcranial skeleton are prevailingly fragmentary.

*Těšetice–Kyjovice – grave H17/1991*: The preserved parts of a child's skull were fragments of cranial bones, the left part of the mandible, two deciduous teeth, a first permanent molar and splinters of long bones. According to 3 deciduous and 13 permanent isolated teeth, the remains correspond to the age of 9–10 years.

*Těšetice–Kyjovice – grave H22/1992*: A child aged 4 years. The remaining parts of the skeleton are only small splinters, deciduous teeth and crowns of permanent teeth.

**Těšetice–Kyjovice – grave H23/1992**: A child 105 cm tall, with a damaged skull missing the skull base (hyperdolichocrany 68.6). Seven deciduous teeth were erupting in the mandible, and there were germs of two crowns of permanent teeth, which corresponds to the age of four years. The postcranial skeleton does not show symphysis of epiphyses and diaphyses, it is platymeric, eurycnemic.

*Těšetice–Kyjovice – grave H26/2006*: A newborn aged 8–9 months. The newborn's skull was deformed (compressed) by the earth pressure and broken into numerous fragments. Isolated germs of 7 deciduous and one permanent teeth were preserved. The postcranial skeleton was preserved, with the exception of lower extremities.

*Vedrovice – grave H3/1966*: The incomplete skeleton of a 6–7-year-old child with a well-preserved skull and mandible (*Figure 50*). Hyperdolichocrany, chamaecrany, acrocrany, eurymetopy, dolichostenomandibular. The preserved teeth include 4 upper deciduous ones, 6 lower ones and 8 permanent ones. The postcranial skeleton is heavily damaged, consisting of numerous fragments, parts of cervical and lumbar vertebrae, and the left pelvic bone. There is only the femur and tibia of the right lower extremity: medium pilaster, eurymeric, eurycnemic.

*Vedrovice – grave H6/1972*: The child's skeleton only had a left part of the skull and a half of the mandible preserved. According to the part of the skull and deciduous teeth eruption, these are remains of a child who died at the age of 3 years. Incomplete and damaged diaphyses of long bones, fragments of ribs and a fragment of the pelvis were preserved of the postcranial skeleton.

*Vedrovice – grave H7/1972*: The remains of a newborn aged 4–5 months included fragments of cranial bones, the



FIGURE 52. Žádovice, 1986. Grave H95, lateral view of the skull of a 6-year-old child.

petrosal bone (*pars petrosa dx*.), a part of the left mandible, a humerus and a femur (*femur dx*.).

*Vedrovice – grave H8/1974*: Scarce skeletal remains of a newborn child, aged 3-4 months. There were only two fragments of the skull, and one humerus, one bone of the forearm, two pelvic bones (*os illium dx. et sin.*), one femur (*femur dx.*) with a weak pilaster.

*Velatice–Velký Široký, K800/2006*: The skeleton of a small, two-year-old child with a well-preserved skull (*Figure 51*), mandible and postcranial skeleton. From the anthropometric point of view the skull is mesocrane, hyperchamaeprosop, hipsiconch, chamaerrhine, leptostaphyline. The postcranial skeleton is complete and has a weak pilaster; it is platymeric, eurycnemic; the stature is 97 cm.

Žádovice – structure 237/95/1986 with a well-preserved skeleton of a 7-year-old child, showing only a damaged right part of the face (*Figure 52*). Deciduous teeth crowns in both the maxilla and the mandible show marked abrasion. Calcareous sinter is preserved on the pelvis and lower extremities. The skull is brachycrane, hypsicrane, metriocrane, mesoconch, mesorrhine, brachystaphiline, orthognath. The postcranial skeleton has preserved long bones of the upper and lower extremities; the child was 120 cm tall.

# RESULTS

# Metric evaluation

The study of children skeletons from Moravian Neolithic settlements was focused mainly on the evaluation of skulls that constituted the best preserved parts of the studied skeletal material. The average values of cranial indices are merely informative, since they include various age categories of children (and therefore skulls at different stages of ontogenesis). The postcranial skeleton measurements yielded dimensions of lower extremities' diaphyses and sporadically also stature.

Metric evaluation of the skulls did not reveal any marked differences within age categories or within various cultures; however, it was also influenced by the poor state of preservation.

## **Representation according to age categories**

The best represented of the three analysed cultural periods are settlement burials of the Linear Pottery Culture period (44 children), and therefore the obtained results can be considered as relatively representative, mainly from the point of view of the Linear Pottery Culture burial rite. The set of settlement burials was further enlarged with 4 children burials of the Culture with Stroke-Ornamented Pottery and 3 children burials of the Moravian Painted Ware Pottery Culture. Although the latter two sets are irrelevant in numbers, their significance is rather informative, reflecting the burying of children in the final Neolithic.

The set of 51 children were identified as follows: 11 newborns, 18 children of 1–6 years of age, 11 children aged 6–10 and 6 children older than 10 years. Age was not assessed in five children.

As to overall representation, most children belonged to the category Infans I – Infans II.

# **Health condition**

The children's health condition can be evaluated in three settlement agglomerations - Těšetice-Kyjovice, Žádovice and Vedrovice, as they are better represented by skeletal material. These studied sets showed repeated occurrence of cribra orbitalia in the frontal part of the orbit ceiling, resulting in bone destruction and porous bone structure. The most frequent type was the "porotic" one, characterized by tiny holes in the orbit ceiling. Another identified case was the "trabecular" one, consisting of larger openings due to the merging of small perforations (Horáčková et al. 2004). Although some authors admit that cribra orbitalia may arise from long-term starving, most authors (Carlson et al. 1974, Hengen 1971, Moseley 1966) agree that cribra orbitalia are a consequence of food disorders. In some cases it may be hypovitaminosis C, but mostly it is a matter of deficient Fe intake or a consequence of intestinal diseases. Cribra orbitalia is a common find in almost any osteological set, and its occurrence evidently prevails in children and younger women. In the Czech Republic, systematic study of these variations was carried out mainly in Slavonic populations (Hanáková 1969, 1971, Stloukal, Vyhnánek 1976).

The health condition of children from Žádovice was not good, repeated occurrence of *cribra orbitalia* being probably a consequence of situations connected with fever, anaemia or stress. All children had considerably worn-out

		LPC	SPC		MPPC		Average
Cranial Index	73.79	dolichocrany	66.48 hyperdolichocrany	76.01	mesocrany	73.75	dolichocrany
ength-Height Index	74.76	orthocrany		76.51	hypsicrany	75.34	hypsicrany
3readth-Height Index	100.49	acrocrany		90.48	tapeinocrany	97.15	metriocrany
ransversal Frontal Index	82.63	middle		79.05	low	81.92	medium
ronto-Parietal Index	67.11	metriometopic		60.58	stenometopic	65.81	stenometopic
<sup>7</sup> oramen Magnum Index	83.40	middle		89.29	wide	85.36	medium
acial Index	64.37	hyperchamaeprosopy		93.75	hyperleptoprosopy	74.17	chamaeprosopy
Drbital Index (dx.)	89.66	hypsiconchy		100.00	hypsiconchy	94.83	hypsiconchy
Drbital Index (sin.)	87.80	hypsiconchy		100.00	hypsiconchy	90.85	hypsiconchy
Vasal Index	51.11	chamaerrhiny		51.26	chamaerrhiny	51.17	chamaerrhiny
alatal Index	80.93	mesostaphyline				80.93	mesostaphyline
Alveolar Index	89.41	orthognathy		90.00	orthognathy	89.71	orthognathy
ength-Breadth Mandibular Index	59.18	dolichostenomandibular				59.18	dolichostenomandibular
alics – only the individual was available fo	or the calcula	tion.					

TABLE 2. Indices (LPC - Linear Pottery Culture, SPC - Stroke-Ornamented Pottery Culture, MPPC - Moravian Painted Pottery Culture)

deciduous teeth and damaged dental enamel in permanent teeth; this condition corresponds to the assumption that they were eating hard food, hazelnuts, etc.

# **Reconstruction of food and migrations**

Reconstruction of food and migrations is one of partial issues enlarging hitherto knowledge of the way of life and nutrition of children in Neolithic settlements. Reconstruction of nutrition trends comprises the sampling of 28 trace elements. Analysis of inorganic bone components is done on a bone sample collected from the proximal part of femur dx. or sin. For analysis of organic bone components, collagen is collected from the ribs. The analysis of C and N isotopes from the ribs collagen allows to specify the kind of plants (C3 or C4 according to photosynthesis) on which the population depended.

In order to study and evaluate migrations (mobility of populations), compact bone tissue of the central part of the femur and dental tissue of the molar (M2) is collected. The principle of identifying migrations is based on an analysis of Sr isotopes ratio in tissues, reflecting the isotopes ratio in food at the time of origin of the tissue. If dentine and compact bone tissue show different values of Sr isotopes ratios, the examined individual was living in different geochemical environments.

For chemical analyses, the monocultural site of Vedrovice was used, with finds of 8 children skeletons from the Neolithic settlement. The results of analyses were compared with those of the polycultural site Těšetice-Kyjovice with finds of 11 children skeletons from the settlement. In Těšetice-Kyjovice, samples of skeletal material of both children and adult individuals were collected in order to reconstruct food and migrations of the Neolithic population. Food reconstruction was made using stable isotopes C, N from bone collagen. The same vegetal food intake was found in children and females (C3 plants of wheat type), while the spectrum identified in males was different and broader. The most proteins were identified in children, less (or of different types) in males, and a completely different type of proteins was found in females. The existence of fishing in the period of the Moravian Painted Ware Culture can be considered as an interesting finding; according to 15N values, the fishers were most probably children and differences in children's food are evidenced by a higher level of proteins. In Těšetice-Kyjovice as well as in Vedrovice, children's vegetal food consisted mainly of forest berries, while in adults the origin of vegetal food was out of the forest. It may be supposed that children were collecting forest berries, and also mothers of newborns and pregnant females complemented their food intake with forest resources.

Samples taken of children skeletal material from Těšetice–Kyjovice helped to identify probable "migrants" in the population. Migration in the children population was analysed from differences of Sr87 and Sr86 isotopes in dental enamel of the first molars (mineralising before the age of three) and from compact bone tissue, showing the situation during the last 10 years before the individual's death. There were four individuals identified as "migrants" in Těšetice–Kyjovice: two from the Linear Pottery Culture (17/1991 and 22/1993), one from the Moravian Painted Ware Culture (6/1967) and one from the Culture with Stroke-Ornamented Pottery (2/1968).

In Vedrovice, children skeletons from graves 2 and 3 showed values of isotope ratio in dental enamel and in the compact bone tissue corresponding to marked migration. In skeleton from grave 3, a high 87Sr/86Sr ratio was found in dental enamel in comparison to bone collagen in the femur. With all probability, the child from grave H3 (6–7-year-old) was not of local origin, and supposedly even not from the Vedrovice area (Smrčka *et al.* 2005).

# **Burial rite**

In the Neolithic period, people started to bury their dead systematically, which was related to the sedentary way of life of the first Neolithic agriculturalists. Since the younger Stone Age, this phenomenon is in no way specific of Moravia, but had spread all over the Central European prehistoric world (Rulf 1996). Skeleton burial grounds were founded in the vicinity of settlements, but also right within them. Skeleton burials, especially children burials, are often found right in settlement structures or in grave pits. Children burials in European prehistory have been described from both the demographic (Horská et al. 1990) and archaeological (Čermáková 2002) points of view. Orschiedt (1992) has made a survey of children burials in settlements in the area of Germany, with a special focus on the Neolithic Linear Pottery Culture. A special case of children burials in settlements is constituted by burials of "children-sacrifices", intentionally deposited in the foundations of Neolithic house constructions (Ondruš 1972). A different way of burying children in the Linear Pottery Culture period was discovered in Žádovice (Čižmář, Geislerová 1998). Remains of burials have been found at various places in settlement pits, in caves on burial grounds, or in silos, bringing evidence of certain benevolence in choosing the place of final rest (Rulf, Čtverák 1997).

Furthermore, mass burials of adult individuals with children occur in the Neolithic. Two important mass burials were found in Bohemia. In a Linear Pottery Culture structure at Třebestovice (near Nymburk), a burial of six children aged 2–14 was found (Rulf, Čtverák 1997, Chochol 1997). Another mass burial of 5 individuals (two children, a female, a male and one juvenile) was discovered in Loděnice (Beroun district) in a partly filled-in and arranged silo (Benková, Čtverák 1997). In Germany, a cumulation of 34 individuals were discovered in a settlement pit at the site of Talheim, Baden-Württemberg (Wahl, König 1987).

Much attention has also been paid to the explanation of the phenomenon of settlement burials. In certain cultures, it may be an integral part of the burial ritual, but also a common way of burying the dead. An interesting survey on the social position of children in the Late Eneolithic was published by Turek (2000). It was only after the end of the Neolithic period, in the Eneolithic, that the space had been clearly divided between settlement and burial areas (Zalai–Gaál 1988, Rulf 1996). It may be presumed that in the Central European Neolithic, there were no binding and unified burial rules yet, and ceremonies might have been held differently under different circumstances (Kazdová 1992).

# CONCLUSION

Until now, analyses of children burials from 20 Moravian Neolithic settlements have led to identifying altogether 51 such burials in various archaeological situations and contexts, with 11 newborns, 33 children in age categories Infans I, Infans II, and 7 juvenile individuals.

Social position of children as fully-fledged members of the Neolithic community is evidenced mainly by the fact that depositing dead children in settlement structures or isolated graves within settlement agglomerations was conducted by fixed rules of the burial rite. These rules have been repeatedly manifested in the larger necropolises at Vedrovice, Žádovice and Těšetice-Kyjovice. Since the age of newborns (Modřice, Slatinky – H2, Žádovice, Mašovice), children are deposited into graves in crouching position on their left or right side, in specific cases (Blučina) lying prone; grave goods are quite frequent. In most of the cases, grave goods represent fully functional artefacts; quite often, though, there are only symbolic gifts of pottery, the vessel being replaced with a larger fragment (Kuřim, Těšetice-Kyjovice), or a mere sherd (Slatinky, Těšetice-Kyjovice).

The first evidence of using settlement structures for burials and at the same time the occurrence of isolated graves within settlements appear - simultaneously with burying at the Vedrovice necropolis – in the early phase Ib (sub-phase Ib,) of the Moravian Linear Pottery Culture. That is the beginning of a rapid increase of all forms of burying, reflected in hitherto finds in the phase IIa. Until now, the only known evidence of burying in the younger phases of Linear Pottery Culture came exclusively from settlements. A change of understanding and explanation of this issue related to the Moravian Linear Pottery Culture, including an answer to the absence of regular necropolises, was brought on only by the far-reaching discovery of the bi-ritual Linear Pottery Culture burial ground in the area of Kralice na Hané (Šmíd 2006: 106-107) and the latest discovery of a second cremation burial ground at the site of Brno-Starý Lískovec in 2006 (Přichystal 2006).

From an archaeological point of view, the issue of burying in the younger period of the Moravian Neolithic (Culture with Stroke-Ornamented Pottery and Moravian Painted Ware Pottery) has been quite constant for a long time. This also applies to children burials. Evidence of graves or burials mostly come from isolated finds in settlement structures (Moravian Painted Ware Pottery Culture). In this regard, the Neolithic agglomeration at "Sutny" (Těšetice–Kyjovice), thoroughly researched for a long time, is exceptional: since 1986, it has yielded a so-far unprecedented amount of 6 graves and burials belonging to the Culture with Stroke-Ornamented Pottery. It was at this site that E. Kazdová came to some of her important findings concerning Middle Neolithic burial rite (Kazdová 1992).

Cremation burying prevails within the burial rite, but there exist also cases of ritual burials, when the dead are deposited in isolated grave pits or settlement pits. In Těšetice-Kyjovice, two ritually deposited skeletons of the Moravian Painted Ware Pottery Culture were discovered in a ditch of a rondel (Podborský 1988). Interesting examples of ritual skeleton burials include the find of a crouched skeleton at Džbánice with a vessel in its lap, and the ritual burial of a child in a settlement pit at Mostkovice (Šmíd 1991). Moravian Painted Ware Pottery Culture settlements have yielded several cases of non-ritually buried individuals, as for instance the adult individual skeleton lying on its belly in a pit at Střelice-Bukovina (Vildomec 1928–1929). Several discarded human skeletons were found at settlements near Pavlov (Kundera 1980) and Hodonice (Rakovská, Stuchlík 1980). The absence of burial grounds belonging to the Culture with Stroke-Ornamented Pottery is probably due to a preference for cremation burials in combination with shallow constructions of graves. The existence of Moravian Painted Ware Pottery Culture necropolises or cumulations of graves with skeletal burying can be presumed from similar finds discovered in neighbouring regions - on the south and south-east (Austria, Slovakia, Hungary). The current absence of skeletal graves, and also necropolises in Moravia is probably a consequence of natural influences (erosion) and anthropogenic factors (deep ploughing).

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