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ANTHROPOLOGY OF THE NEOLITHIC POPULATION FROM VEDROVICE (CZECH REPUBLIC)

ABSTRACT: The Neolithic people from Vedrovice lived on the territory of present-day Moravia for more than 200 years between 6299 BP – 6069 BP. The population of 110 Neolithic inhabitants comprised 77 adults and 33 juvenile individuals. The skeletal material studied underwent anthropological and morphological analyses, which detected 26 males, 48 females, 33 children and 3 indeterminable individuals. The stature in males reached 165.7 cm, in females 154.7 cm; the representation of females was generally higher than that of males, most of the adults died at the age of 20–29. The aim of the research was to reconstruct the life of an Early Neolithic population that changed over from the hunter-gatherer to agricultural economics. The analysis of skeletal remains proved permanent and distinctive structures on bones in 57 individuals, as a reflection of long-time everyday activity related to the agricultural way of life and food processing (bone lips on finger phalanges) or the use of teeth as a work tool. The extent of detected alterations and damages was varied, the changes occurred gradually at the level of individuals.

The transformation of social structure gave a reason to social differentiation. The adaptation to new living conditions in the first farmers was associated with building of cultic areas, displays of spiritual culture, and burial rituals typical of the New Stone Age population. Regarding the number of settlers and the period of existence, the phenomenon of the Neolithic population from Vedrovice will always pertain to unique and rare examples of cemeteries in the Neolithic prehistory of Central Europe.

KEY WORDS: Czech Republic – Moravia – Neolithic burials – Burial rite – Anthropology – Morphological aspect – Palaeopathology – Demography

INTRODUCTION

In the first Neolithic inhabitants a radical change occurred from the hunter-gatherer way of life over to a sedentary agriculture-based economy. Neolithic farmers adapted themselves to new living conditions of the New Stone Age (5700–4900 BC), and gave birth to different cultural displays throughout Central Europe (Mateiciucová 2008). The new society of skilled and aesthetically able makers of material cultures brought to light an agricultural subsistence mode, knowledge of pottery making and textile production together with a gradual development of spiritual superstructure (building of cultic areas, production of anthropomorphic and zoomorphic sculptures and other cultic objects), and various burial modes, as well. The beginnings of systematic burials were associated with sedentary way of life of the first agriculturalists who buried their dead in cemeteries close to villages, but also directly inside the settlements. In Moravia we know of more than 300 Neolithic sites – on this territory inhumation burials and cremations are found inside the settlement features or grave pits (*Figure 1*).

In the 1970s, LBK (Linear Pottery culture) inhumation graves were found at Vedrovice, tracts of land "Široká u lesa" and "Za dvorem". Continuous cemeteries of the LBK people were detected at Moravský Krumlov, Rybníky

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

– Díly, Blučina – Nivky, and at Sutny near Těšetice – Kyjovice (Podborský 1969, Koštuřík 1972, Podborský 1973/74, 1988, Koštuřík, Lorencová 1989/90). At Žádovice in the Hodonín district a Neolithic village was unearthed (Geislerová, Rakovský, Tichý 1987). Settlement burials could be uncovered at Boskovštejn, Brno – Komín, Brno – Lískovec, Mikulov, Mohelnice, Předmostí u Přerova. We also know of numerous isolated burials from the sites of Běhařovice, Bojanovice, Mistřín, Otaslavice, Hluboké Mašůvky (Steklá 1956) or Kuřim (Bálek *et al.* 2000), which are associated with children burials or multiple burials inside settlement features. At Blučina there was a feature containing 3 individuals (Desort 1963), in Mikulov – "Pod Liščí skálou" a burial of 3 children (Unger 1974), in Brno – Komín a feature with 4 individuals (Poulík 1947). To unique examples belongs the site of Těšetice – Kyjovice in the Znojmo district (Dočkalová, Koštuřík 1996, Dočkalová 2005), a polycultural agglomeration where 12 LBK burials were found – 6 of children and 6 of adult individuals. At the Neolithic settlement in Žádovice (Hodonín Dist.) a concentration of 9 children burials was detected (Čižmář, Geislerová 1997), in Hluboké Mašůvky a settlement pit with 3 individuals (Čižmář, Dočkalová 2004, Čižmář 2008b), and in Mašovice a female burial and a rare example of a violently deceased male buried inside a settlement pit (Dočkalová 2006, 2007, Dočkalová, Čižmář 2008a).

Extensive archaeological excavations in Moravia in 1999–2008 helped to raise the number of new finds in the Linear Pottery culture – LBK (Čižmář, Berkovec 2001, Čižmář 2008a). A continuous stagnation could be registered in the Stroked Pottery culture – STK (Kazdová 1989/90, 1992, 2008), and in the Moravian Painted Ware culture – LgK (Koštuřík, Dočkalová 1992, Oliva 2005, Schenk *et al.* 2007) only isolated finds were detected.

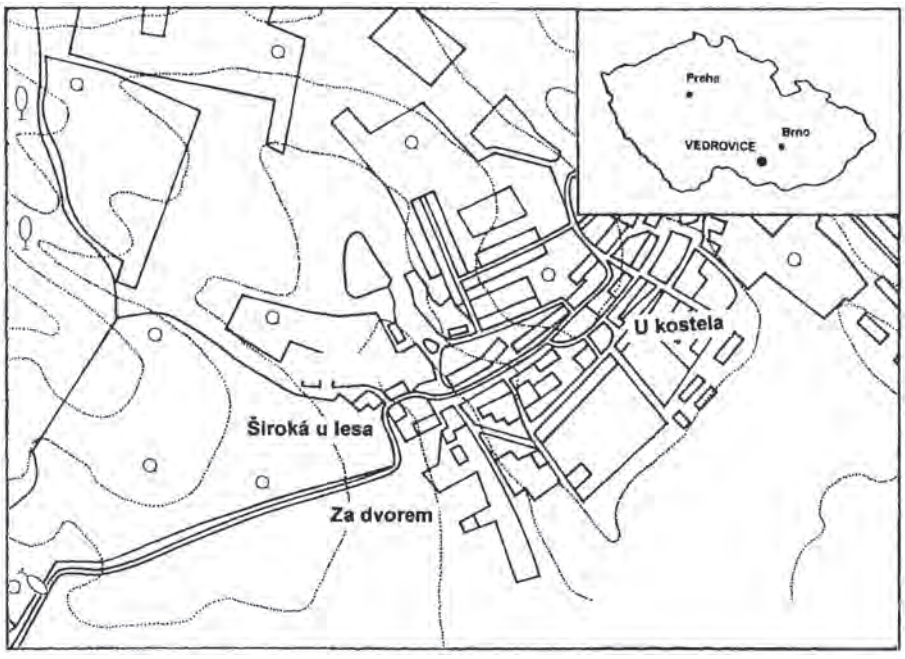


FIGURE 2. Vedrovice, Znojmo Dist. LBK cemeteries "Široká u lesa" and "Za dvorem".

New finds of solitary graves or collective burials from Neolithic LBK settlements and settlement features come for example from several locations in Brno: Bohunice, Starý Lískovec and Nový Lískovec (Přichystal 2006, 2007, 2008), Modřice (Čižmář, Přichystal 2004) or Slatinky (Šmíd 2003), and from Prostějov – Držovice (Čižmář, Procházková 1999). In the biritual cemetery of Kralice na Hané – "Kralický háj" (Šmíd 2004, 2006), dated back to the late phase of LBK, 69 from the total of 78 burials were cremations (Šmíd 2008).

HISTORY OF NEOLITHIC RESEARCH AT VEDROVICE

Archaeological research

The site of Vedrovice is situated 40 km SW of Brno (*Figure 2*). Favourable soil and climatic conditions provided a suitable basis for the Vedrovice settlement during the whole prehistoric period. The municipality of Vedrovice is divided into two tracts of land: the northern "Široká u lesa" and southern "Za dvorem" where already at the end of the 19th century settlement evidences were detected together with 12 Neolithic burials (Woldřich 1890). The settlement area sized 700 m^2 with thick (430 cm) loess soils was surrounded in the landscape by an extensive upland with elevations of 245–254 m ASL, and by the nearby Krumlovský les (Podborský, Vildomec 1972).

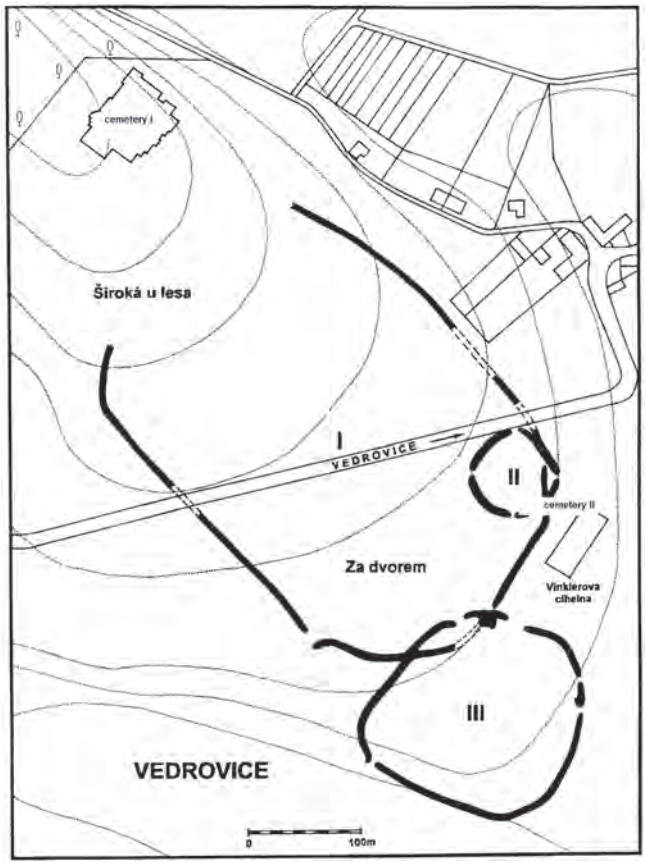


FIGURE 3. Neolithic sites at Vedrovice in 1961–1989 (Podborský *et al.* 2002).

In 1910 in Vinkler's brickworks (Vinklerova cihelna) at the location "Za dvorem" six Neolithic inhumation burials could be uncovered, in 1911 another two burials and an inhumation twin burial (Černý 1911, Skutil 1930, 1941, Tichý 1962, Ondruš 1972, 1976). Some of these burials, whose number is not known, were most probably destroyed by the workers in Vinkler's brickworks. In 1952 at the location "Široká u lesa" a child grave was destroyed at tree planting (Ondruš 1972).

In 1961–1989 the Archaeological Department of the Moravian Museum in Brno performed a systematic excavation in both main tracts of land in the cadastre of Vedrovice – "Za dvorem" and "Široká u lesa" (*Figure 3*). The research was focused on the Neolithic LBK and STK settlement, but also Palaeolithic, Aeneolithic, Young Bronze Age and late medieval settlement evidences could be detected. In 1961–1974 at the location "Široká u lesa" an LBK settlement sized 5000 m^2 could be proved and investigated, including 12 inhumation burials (9 children, 3 adult individuals), ground plans of pole buildings, ovens and other settlement features (Ondruš 1972, 1977). During a trial trenching in 1984 at the location "Široká u lesa" a child skeleton (G 109) from the STK period was

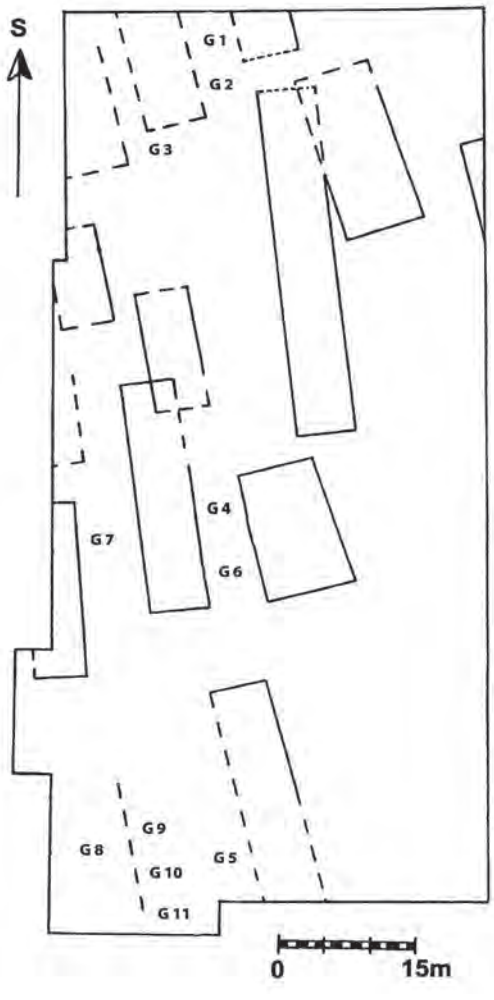


FIGURE 4. Vedrovice, plan of the cemetery including the graves G 1–11 in the tract of land "Široká u lesa" (Ondruš 1972).

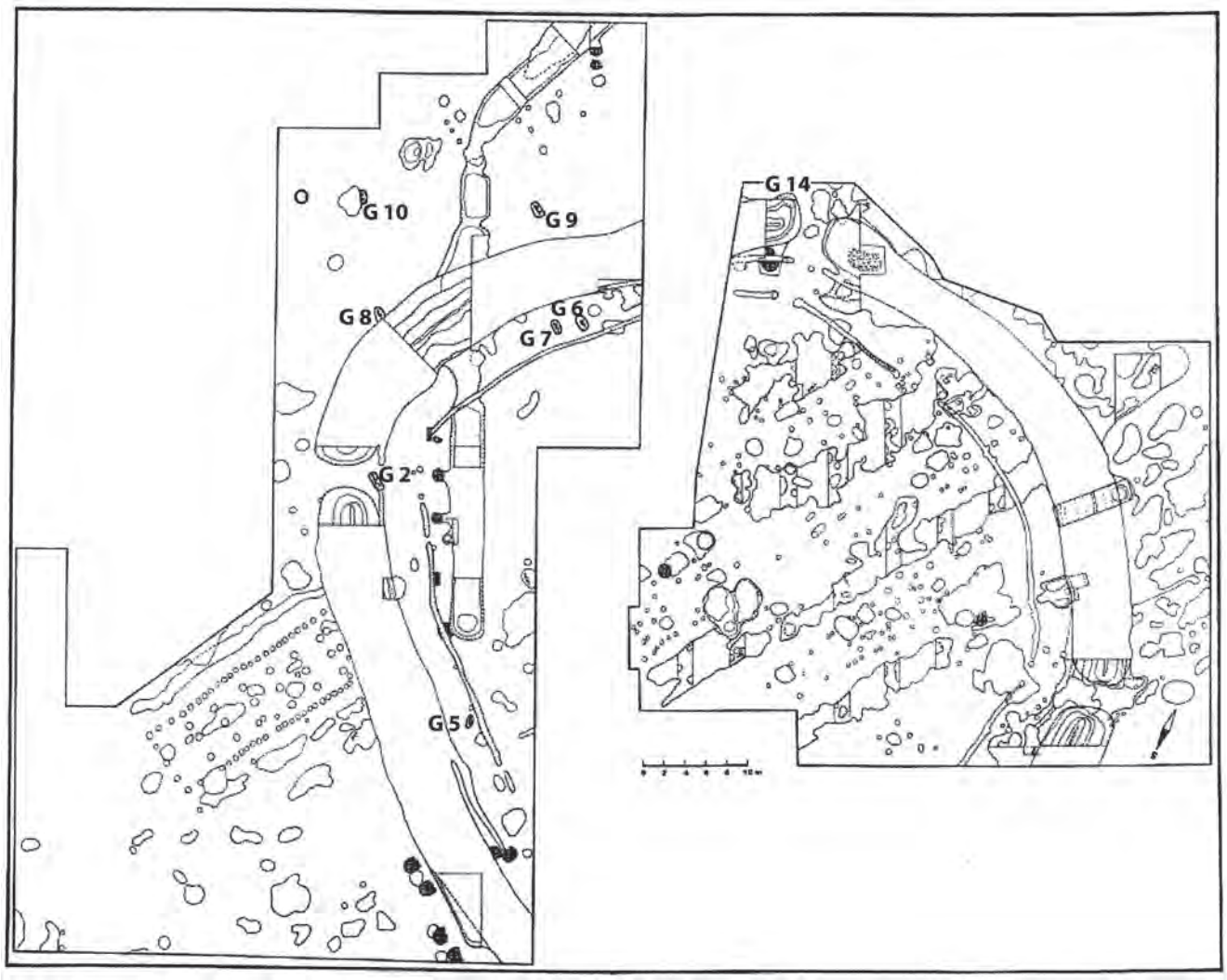


FIGURE 5. Vedrovice, plan of the cemetery including the graves G 2, 5, 6–10, 14 in the tract of land "Za dvorem" (after V. Ondruš, A. Humpolová).

detected. In 1975–1982 in the north part of the tract of land "Široká u lesa" an LBK cemetery was uncovered. The results of this excavation were published (Podborský *et al.* 2002) together with a burial analysis from the location "Široká u lesa" (1975–1982). In 1985–1989 during the archaeological excavations directed by V. Ondruš at the location "Za dvorem" seven LBK burials in regular grave pits (2/85, 5/88, 6/88, 7/88, 8/88, 9/88, 10/89) and two skeletons (1/85, 3/89) in LBK settlement pits (O 37, O 56) could be uncovered, and one burial (4/87) of the Bell Beaker culture (*Figure 4*). In 1969–1997 during an excavation by the Moravian Museum, A. Humpolová discovered 4 LBK burials, three of them in settlement pits (11/96, 12/96, 13/97) and one (14/97) in a regular grave pit (*Figure 5*).

Aerial and geophysical prospecting in 1975–1982 at the location "Za dvorem" detected a system of fortification features (Bálek, Hašek, Ondruš, Segeth 1989). The first one was a ditch from the LBK period serving as an enclosure of the entire settlement, the second one from the LgK period was a circular ditched enclosure with twin inner palisade, and the third one was an irregular round ditched enclosure overlapping with the LBK ditch (Humpolová, Ondruš 1999). After a verifying excavation the irregular ditch was dated back to the early phase of the Moravian Painted Ware culture (LgK) (Humpolová 2001). During an excavation in 1985–1997 in the tract of land "Za dvorem" 14 inhumation burials were detected, five of them in settlement pits and eight in LBK grave pits belonging apparently to the so-called second cemetery (Černý 1911, Skutil 1941, Ondruš 1972). The third cemetery in the cadastre of Vedrovice had been assumed at the location "U kostela" (Skutil 1930, Steklá 1956), however, the existence of a burial ground at this place could not be proved (*Figure 2*).

A new analysis specified the succession of burials in the LBK period between the Ib and IIa phases (Tichý 1962, Berkovec, Humpolová 2004). Today the original names of the cemetery location "Za dvorem" and the settlement location "Široká u lesa" are regarded from the archaeological point of view as auxiliary designations of one and the same archaeological site.

During the excavations in 2006–2009 an extensive dating by the ASM radiocarbon method had been performed in

skeletal material from the location "Široká u lesa" (Pettitt, Hedges 2008), and newly in skeletal remains from the location "Za dvorem" (*Figures 6, 7*). The dates acquired from the Vedrovice cemetery fall approximately to 5200 BC.

Anthropological research

Skeletal remains from the Vedrovice excavations had been acquired and included into the collections of the Anthropos Institute in 1961–1989 and 1997–2003. The research was lead by the anthropologist J. Jelínek, and the skeletal material was conserved and restored by the preparator of the Institute, S. Šiller. In the course of processing, a preliminary report was issued on the discovery of two females who had died during delivery (Jelínek 1992).

In 1995–1999 the anthropological analyses of skeletal material from Vedrovice had been performed in the presence of foreign researchers E. Crubézy, J. Brůžek, M. Teschler-Nicola (Crubézy 1996, Crubézy *et al.* 1997, Crubézy *et al.* 2002), and the dental material from Vedrovice and Krškany had been anthropologically analysed (Frayer 2004) as well.

The year 2006 saw the beginning of the first stage of research focused on the Neolithic settlements in Moravia: "Anthropological and bio-archaeological analysis of the Neolithic settlements in Moravia", funded by the Czech Science Foundation grant GAČR No. 206/06/1126. From the site of Vedrovice the skeletal remains of 8 children (Dočkalová, Čižmář 2007, Fojtová *et al.* 2008) and 12 adult individuals (Dočkalová, Čižmář 2008a, 2008c) were analysed, and the results of dental anthropology were evaluated (Jarošová 2008, Jarošová *et al.* 2008, Jarošová, Dočkalová 2008).

In 2005–2007 the second stage of research on the Neolithic settlements in Moravia had been in progress: "Biological and cultural identity of the first farmers: Multiple bio-archaeological analysis of a Central European cemetery (Vedrovice)" in the presence of foreign researchers M. Zvelebil, P. Pettit, A. Lukes, B. Bramanti, M. Richards, P. Nystrom, and M. Lillie, funded by the A.H.R.B. (Arts and Humanities Research Board) grant No. B/RG/AN185/APN18452.

Before the research has begun in 2005, a revision of all skeletal remains from Vedrovice was performed. The restorer in the Anthropos Institute Y. Kovaříková carried

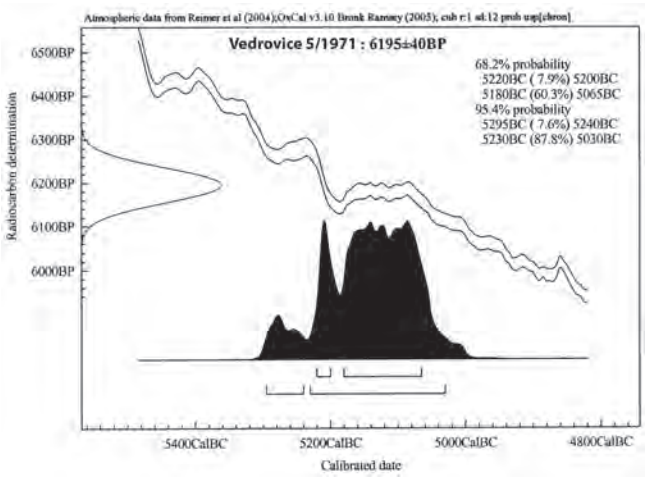


FIGURE 6. C^{14} dating of Burial 5/1971 from the site "Za dvorem", laboratory VERA Vienna.

out a new anatomical reconstruction in the skeletal material treated. At the anatomical determination and above all at entering the records into a database participated M. Hrnčířová-Fojtová, I. Jarošová, T. Trubačová-Sojková, Y. Kovaříková, M. Křivanová, and dental determination was carried out by I. Jarošová. Skeletal material was drawn into databases with regard to age representation of children (*Figure 8*), juvenile individuals (*Figure 9*), females (*Figure 10*) and males (*Figure 11*). Together with anatomical records also the locations of bone sampling for the analyses of DNA, migrations, alimentation, and for C14-dating were catalogued. The photographic and drawing documentation of skeletal and pathological findings was made by M. Hrnčířová-Fojtová, I. Jarošová, Y. Kovaříková, M. Křivanová, I. Růžičková and Z. Tvrdý.

The revision of finds, however, detected loss on unique skeletal material, which had been originally present and published as well. In a comprehensive and unifying anthropological study we present the overview of all 110 individuals of the LBK period from Vedrovice.

ANTHROPOLOGY

The anthropological material from archaeological excavations carried out at Vedrovice (1963–1985, 1987–

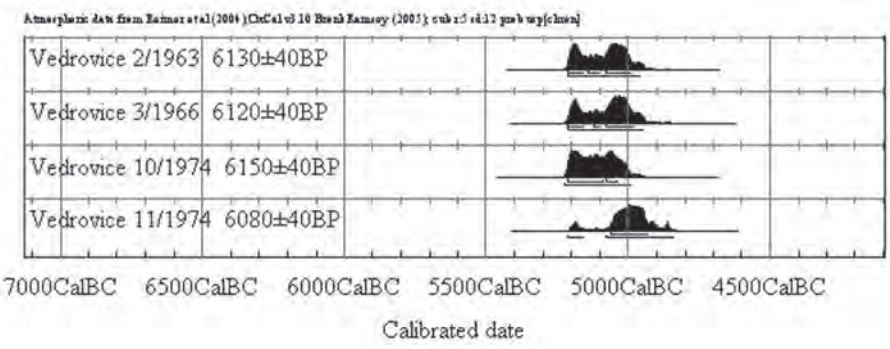


FIGURE 7. C^{14} dating of Burials 2/63, 3/66, 10/74, 11/74 from the site "Za dvorem", laboratory Poznań.

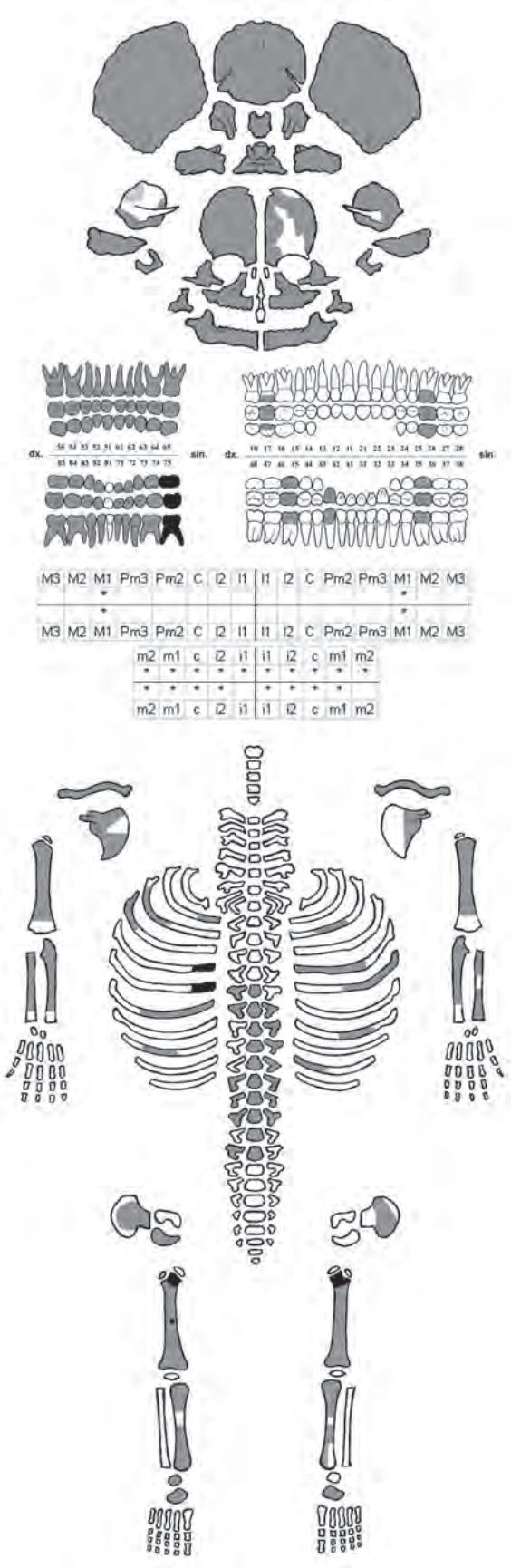


FIGURE 8. Anatomical record of the child skeleton No. 20/1975, aged 3–4 years; the bones withdrawn for destructive chemical analyses are marked in black.

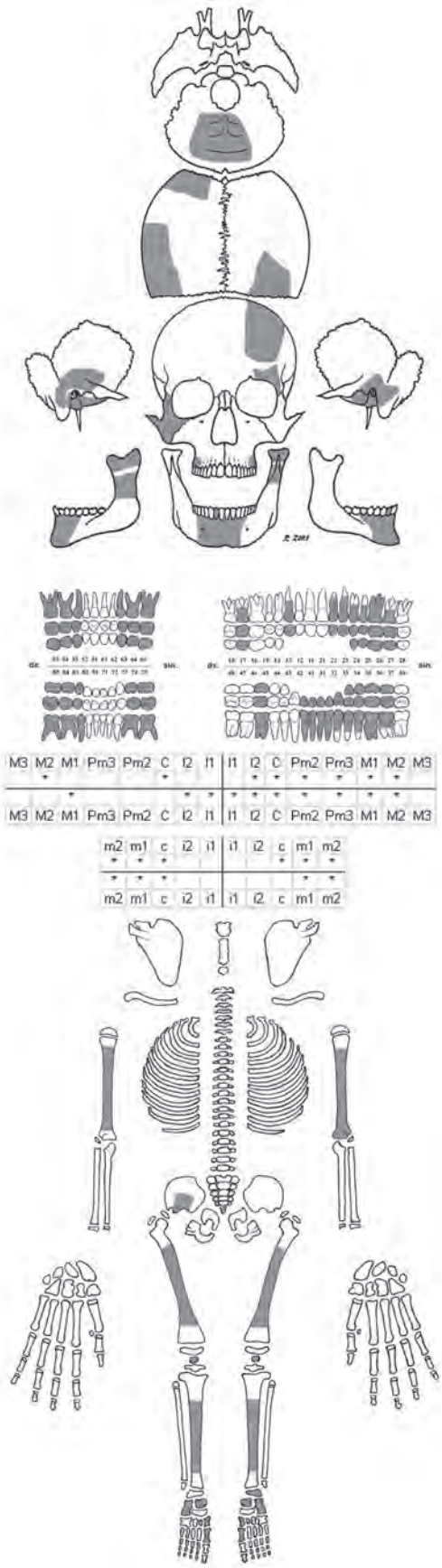


FIGURE 9. Anatomical record of the child skeleton No. 84/1980, aged 9 years.

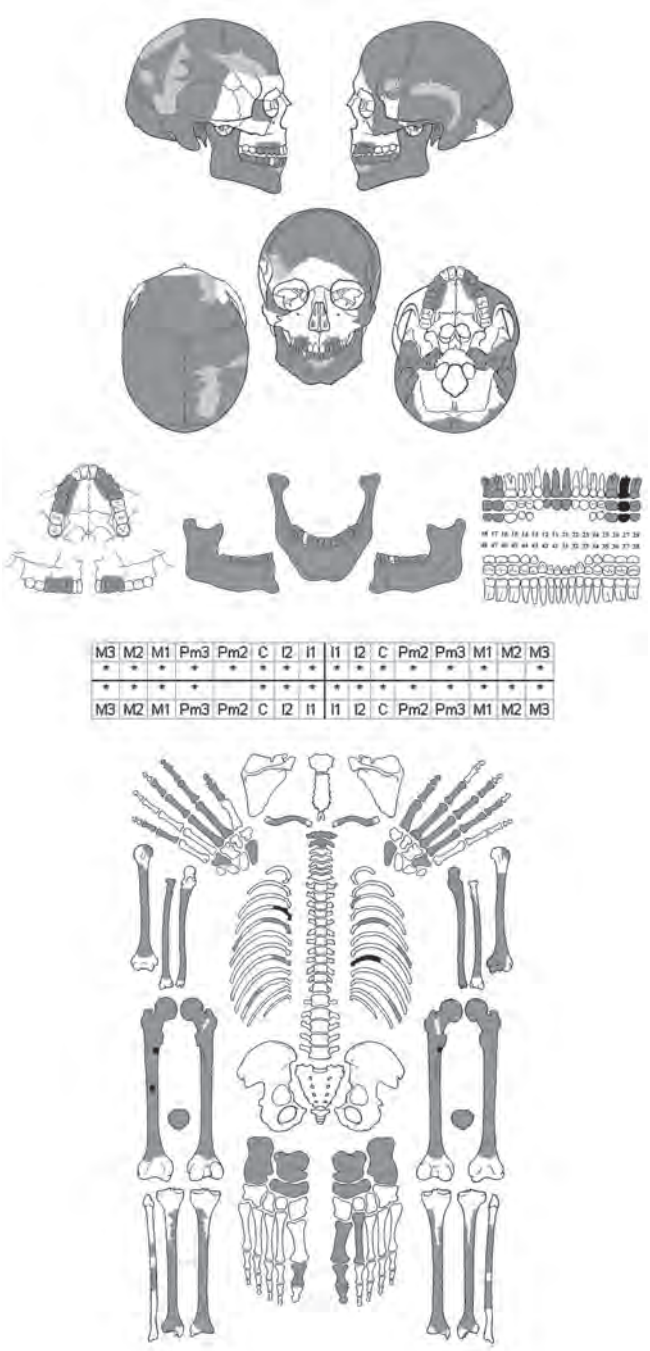


FIGURE 10. Anatomical record of the female skeleton No. 45/1977, aged 35–45 years; the bones withdrawn for destructive chemical analyses are marked in black.

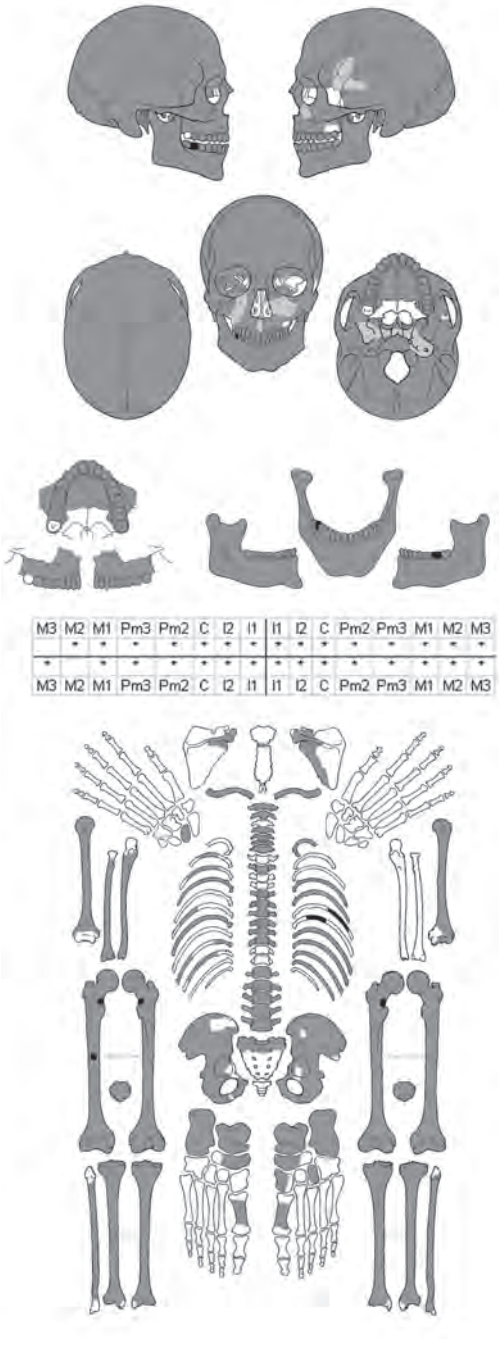


FIGURE 11. Anatomical record of the male skeleton No. 19/1975, aged 25–35 years; the bones withdrawn for destructive chemical analyses are marked in black.

1996, 1997–2003) had been delivered to the collections of the Anthropos Institute; museum's inventory of the material had been performed during the excavations or additionally in following years. That is why the museum inventory numbers are not consecutive, but in the register of skeletal material they represent the most important record, which is irreplaceable for a precise identification of skeletal finds by grave numbers and excavation years.

Material and methods

Agricultural life and processing of agrarian food in the Neolithic was associated with a great deal of working activities. Skeletal material from Neolithic individuals was very interesting at first sight already, because some of the alterations and distinctive bone formations are evident reflections of a permanent working activity. That is why the evaluation of skeletal material was focused mainly

on detection of possible connections between a concrete working activity and irreversible bone alterations (Eickhoff, Hermann 1985).

The study of skeletal finds and determination of human bones had been performed according to morphological attributes and specified standard anthropological methods recommended by the Workshop of European Anthropologists (Ferembach *et al.* 1980).

For the purpose of anthropological analysis we disposed of skeletal remains of 110 individuals with varied degree of bone preservation (Henderson 1987); some of the skeletons were hard to identify (Williams *et al.* 1989), which considerably limited the possibilities of anthropological analysis (Bass 1987). For the determination of sex, methods were used based on intersexual differences in pelvic (Novotný 1986, Phenice 1969) and cranial structure (Nemeskéri *et al.* 1960, Acsádi, Nemeskéri 1970). The sex in children had not been determined. For the determination of biological age in children and juveniles, methods were used evaluating the degree of dental eruption according to schemes (Ubelaker 1978), the growth and development of infant skeletons (Ferembach *et al.* 1980, Fazekas, Kósa 1978, Schwartz 1995), and the length of long bones (Stloukal, Hanáková 1978, Fazekas, Kósa 1978). The determination of age at death in adult individuals was based on the evaluation of dental abrasion (Lovejoy 1985), degree of obliteration of cranial sutures (Meindl, Lovejoy 1985, Bass 1987), alterations on the surface of pelvic symphysis (McKern, Stewart 1957, Gilbert, McKern 1973), and alterations of the sternal end of the clavicle (Szilvássy 1980). For metrical evaluation of skeletal material the system of measures by Martin and Knussman (1988) was used, the stature was calculated with the method by Sjøvold (1990) and measurements were carried out with procedures defined by Olivier (1969).

For the purpose of this research, the individuals studied were divided by age into categories as follows: Infans I (until 5 months), Infans II (5 months to 6 years), Infans III (7–14 years), Juvenis (15–19 years), Adultus I (20–29 years), Adultus II (30–39 years), Maturus I (40–49 years), Maturus II (50+ years). The group of adults comprised several age-unspecified individuals as well.

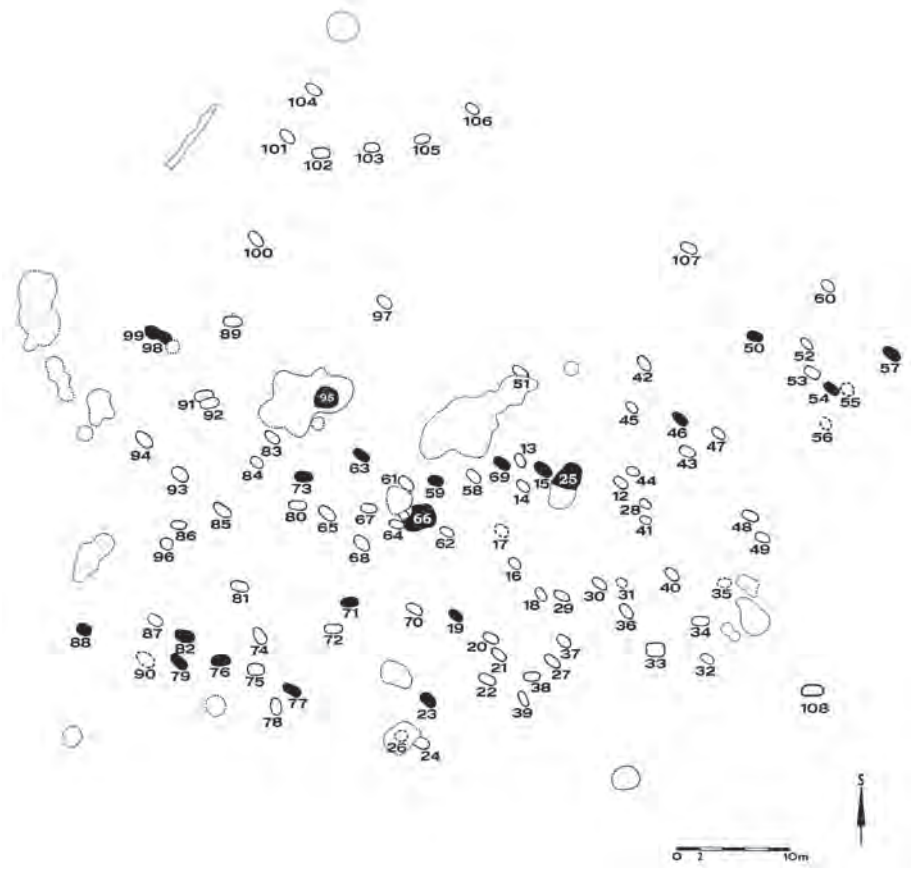
CATALOGUE OF ANTHROPOLOGICAL RECORDS

Determination of Males (*Figure 12*)

Burial 10/1974: Museum Inv. No. A 1629
Sex: male
Age: 40–49 yrs
Individual: well preserved skeleton
Stature: 158.5 cm
Skull: robust, with deformed left side of the face (*Figure 13a, b, c*). Flat forehead, flat glabella, weakly developed *arcus superciliares,* mastoids are large, strong. Cranial occiput with *linea nuchae suprema* and *linea nuchae superior* forms a massive *protuberantia occipitalis externa* with coracoid eminence at the inion (*Figure 69a, b*). Maxilla – prognathic; mandible – high, with distinctive chin, straight gonia, teeth covered with calculus.
Dental caries: maxilla – right M3 caries, M1 cyst, left P1, M1 and M2 caries. Mandible – right P1 caries, left M1 caries, alveoli in M2 and M3 vanished.
Anthropometric characteristics: ultradolichocrany, hypsicrany, acrocrany, eurymetopy, lepteny, hypsiconchy, leptorrhiny, prognathy, dolichostenomandibular
Postcranial finding: very strong tuberosities of *m. deltoideus,* distinctive *tuberositas radii.* Proximal phalanges exhibit lipping – overgrown lateral margins in the middle part of the bones (*Figure 90*), except the thumb. Femurs show strong *tuberositas glutaea*, *trochanter tertius* forms a bony protuberance, strongly developed attachment sites for the knee extensors. Tibiae are platycnemic, with distinct *tuberositas tibiae.*
Diseases: arthritic osteophytes on the vertebral column; porous bone surface in the costal region (*Figure 142*)
Finding: congenital defect – dilated *canalis incisivus* in *torus palatinus* (*Figure 124*)
X-ray: tibiae – negative result

Burial 11/1974: Museum Inv. No. A 1630
Sex: male
Age: 45–55 yrs
Individual: skeleton scattered within the feature O 123 together with animal bones
Stature: 168.8 cm
Skull: very robust, with strongly developed *arcus superciliares*, robust mastoids (*Figure 14a, b, c*). Mandible – strong, high, straight gonia. On the temporal bone there is a distinctive supramastoid crest of about 2–3 cm passing over into *arcus zygomaticus*. Cranial occiput with rough topography, *protuberantia occipitalis externa* forms a protuberance of extreme shape at the inion (*Figure 70a, b*).
Dental caries: maxilla – in left M1 dental cyst, mandible – in M2 and M3 on both sides vanished alveoli
Anthropometric characteristics: dolichocrany, eurymetopy, acrocrany, lepteny, hypsiconchy, leptorrhiny, orthognathy, dolichostenomandibular
Postcranial finding: humerus with rough tuberosity of *m. deltoideus*, radius – on the dorsal surface osteophytes, ulna with deep cavity *incisura radialis* passing over into the sharp ridge *crista musculi supinatoris* (*Figure 80*). *Olecranon* – robust, corrugated at *facies posterior*. Hand bones are not preserved. Joints in long bones are massive, with distinctive muscle attachment sites, the bones exhibit violent interventions by breaking and cutting. The surface of fractures and notches is coated with "sinter" (calcareous crust) proving the primary origin of these interventions. *Tibia dx*. is mesocnemic, with distinctive lateral ridge.
Diseases: vertebral bodies are reduced in height; osteophytes in thoracic vertebrae Th11, Th12, and the lumbar vertebra L3 (*Figure 134*)

FIGURE 12. Vedrovice, "Široká u lesa" – plan of the cemetery with male burials marked in black.



Injuries: humerus is broken with a smooth fracture, tibia with irregular fracture, *femur dx.* is broken with spiral fracture in the distal portion (*Figure 136*)
Finding: extremely developed *protuberantia occipitalis externa*
X-ray: tibiae, claviculae – negative result

Burial 15/1975: Museum Inv. No. A 2279
Sex: male
Age: 35–40 yrs
Individual: very well preserved skeleton
Stature: 164.4 cm
Skull: very robust, distinctive *arcus superciliares*, glabella of stage III, massive mastoids, wide zygomatic bones. On the frontal bone there are two holes – healed injury, arched cranial occiput with rough topography (*Figure 15a, b, c*). Mandible – high, everted gonia.
Anthropometric characteristics: dolichocrany, hypsicrany, acrocrany, eurymetopy, leptoprosopy, hyperlepteny, chamaeprosopy, hypsiconchy, chamaerrhiny, orthognathy
Postcranial finding: humeri – robust, with smooth topography, without tuberosities. *Ulna dx.* exhibits a bow-like bended *olecranon*, cavity at *incisura radialis*, the margins *margo interosseus* are sharp and distinctive (*Figure 81*). Proximal phalanges exhibit bone lipping at their margins (*Figure 87*). Femurs are robust, with distinct *linea aspera,* medium pilastric, platymeric. Tibiae are mesocnemic.
Diseases: osteophyte on Th12; tibiae with Harris lines
Injuries: the healed head injury was originally described to be trepanation (Crubézy 1996, Dočkalová 2001). Checking up the finding the new technology of CT imaging was used, which proved a violent perforation of the skull. In neither of the holes a trepanation groove could be detected, but a blow directed inside the skull. On the frontal bone there are two ellipsoid perforations with traces of healing (*Figure 137a*). The first hole is 2.4 cm long and 1.1 cm wide, the other one is larger, sized 3.3 cm in length, and 1.1–1.4 cm in width (*Figure 137b*). Between both these perforations there is a bone 1.9 cm wide, which was originally crashed, but particular fragments grew together again. This new formation coalesced with existing fragments of the frontal bone, and bears distinct traces of healing, which markedly diminished the original size of the trauma. Borders of the ellipsoid holes are smooth due to the healing process (*Figure 137c*).
X-ray: claviculae – negative result

Burial 19/1975: Museum Inv. No. A 2283
Sex: male
Age: 25–35 yrs
Individual: well preserved skeleton
Stature: 166.5 cm
Skull: high, forehead with postorbital constriction, distinctive *arcus superciliares*, glabella of stage III (*Figure 16a*). Wide zygomatic bones, distinct *tuberculum marginale*. Arched cranial occiput, flat *squama occipitalis*, the elongated occiput with somewhat more distinctive

FIGURE 13a, b, c. Vedrovice No. 10/74. Frontal, lateral and occipital view of the skull of a 40–49-year-old male.

FIGURE 14a, b, c. Vedrovice No. 11/74. Frontal, lateral and occipital view of the skull of a 45–55-year-old male.

FIGURE 15a, b, c. Vedrovice No. 15/75. Frontal, lateral and occipital view of the skull of a 35–40-year-old male.

FIGURE 16a, b, c. Vedrovice No. 19/75. Frontal, lateral and occipital view of the skull of a 25–35-year-old male.

FIGURE 17a, b, c. Vedrovice No. 23/75. Frontal, lateral and occipital view of the skull of a 17–20-year-old male.

FIGURE 18a, b, c. Vedrovice No. 46/77. Frontal, lateral and occipital view of the skull of a 20–35-year-old male.

topography below the *linea nuchae inferior* forms a moderate torus (*Figure 16b*). Mastoids are medium-sized. Mandible – short, low, straight gonia, distinctive chin (*Figure 16c*).
Dental caries: maxilla – in left M3 caries
Anthropometric characteristics: dolichocrany, hypsicrany, acrocrany, eurymetopy, leptoprosopy, hyperlepteny, chamaeprosopy, hypsiconchy, chamaerrhiny, orthognathy
Postcranial finding: on the vertebral column there are small osteophytes. Humeri are robust, without any distinct tuberosities. The left forearm is not preserved. The right ulna with cavity *incisura radialis,* the margins *margo interosseus* are most distinctive in the middle part of the bone. Pelvis is robust, typically male. Femurs are medium-sized, with weakly developed pilaster, indistinct *tuberositas glutaea*, eurymeric. Tibiae – medium robust, eurycnemic. *Calcaneus* with osteophytes *calcar calcanei.*
Diseases: tibiae with Harris lines
X-ray: claviculae – negative result

Burial 23/1975: Museum Inv. No. A 2287
Sex: male
Age: 17–20 yrs
Individual: very well preserved skeleton
Stature: 163.5 cm
Skull: wide forehead, glabella of stage I, medium-sized *arcus superciliares*, developed *processus marginalis*, medium-sized mastoids (*Figure 17a*). Arched cranial occiput, below the nuchal line runs the edge of *fossa transversa*, below *linea nuchae inferior* there is a torus (*Figure 17b*). *Torus palatinus* exhibits a dilated *canalis incisivus*. Mandible is short with round chin, slightly everted gonia (*Figure 17c*). Healthy teeth without caries, medium-abraded.
Anthropometric characteristics: dolichocrany, orthocrany, acrocrany, eurymetopy, chamaeprosopy, hypsiconchy, mesorrhiny, orthognathy
Postcranial finding: attachment sites of deltoid muscles are smooth, *tuberositas deltoidea* is entirely absent, in the proximal part there is the distinct cavity *sulcus intertubercularis*, the eminence *tuberculum minus* passes over into the sharp ridge *crista tuberculi minoris*. Proximal phalanges without lipping, but with longitudinal grooves. *Os sacrum* is flat, with small *facies articularis*. Femurs – massive, with large articular heads, strongly pilastric, platymeric. Tibiae – mesocnemic.
Diseases: *cribra orbitalia* in both orbits; tibiae with Harris lines
Finding: congenital defect – dilated *canalis incisivus*
X-ray: claviculae – negative result

Burial 25/1975: Museum Inv. No. A 2289
Sex: male
Age: adult
Individual: only postcranial skeleton
Postcranial finding: damaged postcranial skeleton. *Os metacarpale II*. Articular heads in femurs are broken off below the trochanters, partly preserved tibial shafts, pelvical fragment. On the bones one can detect original fractures and notches covered with sinter.
Injuries: fractures and notches

Burial 46/1977: Museum Inv. No. A 2306
Sex: male
Age: 20–35 yrs
Individual: well preserved robust skeleton
Stature: 164.6 cm
Skull: high, with wide forehead, distinct *arcus superciliares* and *lineae temporales* (*Figure 18a*). In the frontal bone there is an oval defect, in the temporal bone a distinct supramastoid crest, massive mastoids (*Figure 18b*). Cranial occiput is slightly prominent, occipital bone high, with distinct topography (*Figure 18c*), *protuberantia occipitalis externa* is coracoid (drop-like) in shape (*Figure 71a, b*). Maxilla holds a complete dentition without caries. Mandible is short and wide, with distinctive angular chin, everted gonia.
Anthropometric characteristics: dolichocrany, orthocrany, acrocrany, eurymetopy, chamaeprosopy, hypsiconchy, mesorrhiny, orthognathy
Postcranial finding: the bodies of lumbar vertebrae are reduced in height. Humeri have in the proximal part the deep cavity *sulcus intertubercularis* (*Figure77*), attachment sites of deltoid muscles are missing. In the forearm there is a sharp and distinct margin *margo interosseus*, deep cavity *incisura radialis* (*Figure 82*), bones are bow-like deflected. On *phalanges proximales* an initial stage of bone lipping can be observed. Femurs are robust, with medium-sized articular heads, indistinct *tuberositas glutaea*, weakly developed pilaster, eurymery. Tibiae – mesocnemic, anterior crests *tuberositas tibiae* are distinct, S-shaped.
Diseases: oval (3cm) defect on the frontal bone; tibiae with Harris lines (*Figure 148*)
X-ray: claviculae – negative result

Burial 50/1977: Museum Inv. No. A 2308
Sex: male
Age: adult
Individual: partial postcranial skeleton
Postcranial finding: rib fragments, forearm bones, iliac wings, the left femur without articular head, with a distinct angular *linea aspera,* tibial shafts, foot bones

Burial 54/1978: Museum Inv. No. A 2988
Sex: male
Age: 20–25 yrs
Individual: skeleton of a robust male
Stature: 171.9 cm
Skull: gracile *calvaria* with flat glabella, arched cranial occiput with indicated topography of *protuberantia occipitalis externa*, drop-shaped.
Postcranial finding: vertebrae without osteophytes, ribs are not preserved. Humeri – robust, without distinct deltoid tuberosities. *Ulna dx*. with distinctive *crista musculi supinatoris* passing over to the middle part of the

shaft. *Olecranon* is robust, corrugated at *facies posterior* (*Figure 83*), finger phalanges are not preserved. Pelvis – robust, with typical male attribute. Femurs with massive articular heads, medium-developed *tuberositas glutaea*, *linea pectinea* in form of a bony crest, distinctive *linea aspera*, strongly developed pilaster, eurymery. Tibiae are eurycnemic.
Diseases: tibiae with Harris lines (*Figure 149*)
X-ray: claviculae – negative result

Burial 57/1978: Museum Inv. No. A 2991
Sex: male
Age: 40–50 yrs
Individual: skeleton with damaged skull
Stature: 165.5 cm
Skull: fragment of the frontal bone, temporal bones with small mastoids, occipital bone with topography of *protuberantia occipitalis externa.* Mandible – short, with angular chin, high at symphysis, everted gonia, healthy teeth without caries, the left M3 erupted, the right one not.
Postcranial finding: ribs and vertebrae are fragmentary. The right humerus has a medium-sized articular head, indistinct *tuberositas deltoidea*, with cavity *sulcus intertubercularis.* The forearm has sharp margins *margo interosseus, phalanges proximales* exhibit bone lips in the middle part (*Figure 88*). Pelvis is medium-sized. Femurs – distinct *tuberositas glutaea,* lateral branches at *linea pectinea,* angular *linea aspera* (*Figure 93*), weakly developed pilaster, hyperplatymery. Tibiae are mesocnemic.
Diseases: tibiae with Harris lines (*Figure 150*)
X-ray: claviculae – negative result

Burial 59/1978: Museum Inv. No. A 2992
Sex: male
Age: 25–30 yrs
Individual: robust skeleton
Stature: 165.8 cm
Skull: *calvaria* without cranial base, relatively thin cranial bones, small mastoids, occipital bone with developed topography, *protuberantia occipitalis externa* at the inion with distinct topography – coracoid shape. Mandible – medium-sized, with prominent chin, everted gonia, healthy teeth without caries, M3 not erupted.
Postcranial finding: cervical and lumbar vertebrae without finding. Humeri with medium-sized articular heads, indistinct *tuberositas deltoidea,* on both sides perforated *fossa olecrani*. *Ulna dx.* with sharp margin *margo interosseus* and *crista musculi supinatoris.* Robust *olecranon,* corrugated at *facies posterior*. Hand bones *phalanges proximales* without distinct findings, three fingers exhibit small osteophytes at the initial stage of growth. Pelvis is medium-sized. Femurs – distinct *linea aspera* and angular *linea pectinea,* weakly developed pilaster, platymery. Tibiae – medium-sized, flat, with indistinct anterior crests, eurycnemic.
Diseases: tibiae with Harris lines
X-ray: claviculae – negative result

Burial 63/1978: Museum Inv. No. A 2995
Sex: male
Age: 40–45 yrs
Individual: incomplete skeleton
Skull: fragments of cranial bones, chin fragment, isolated abraded teeth
Postcranial finding: two *phalanges proximales* with lateral bone lips, insufficient for evaluation. Two parts of a gracile ulna. The left femur without proximal and distal heads, *linea aspera* along the shaft is indistinct. The other parts of the skeleton are crushed into small pieces.

Burial 66/1978: Museum Inv. No. A 2997
Sex: male
Age: 30–35 yrs
Individual: well preserved skeleton
Stature: 159.8 cm
Skull: wide flat forehead, medium-developed *arcus superciliares*, massive *processus marginalis* on zygomatic bones*,* medium-sized mastoids (*Figure 19a, b*). Cranial occiput shows on *planum nuchale* a distinct arched *linea nuchae suprema*, occipital topography is tubercular (*Figure 19c*). Mandible – short, narrow, high at symphysis, chin with moderate protuberance, healthy teeth.
Anthropometric characteristics: mesocrany, hypsicrany, acrocrany, metriocrany, metriometopy, leptoprosopy, hyperlepteny, mesoconchy, leptorrhiny
Postcranial finding: vertebral column and ribs are fragmentary. *Clavicula sin*. with the eminence *tuberculum conoideum.* Humeri without articular heads, deltoid tuberosities are missing. Forearm without finding, indistinct. In *phalanges proximales* bone lips in the middle parts. Damaged pelvis. Femurs – robust, massive articular heads with distinct *trochanter minor, trochanter tertius* with rough topography, angular *linea aspera,* weakly developed pilaster, platymery. Both of tibiae are missing.
X-ray: claviculae – negative result

Burial 69/1978: Museum Inv. No. A 3000
Sex: male
Age: 20–30 yrs
Individual: well preserved skeleton
Stature: 169 cm
Skull: high arched forehead, medium-developed *arcus superciliares,* small postorbital constriction, medium-developed glabella. Large mastoids with strong supramastoid crest, medium-sized *processus marginalis* (*Figure 20a, b*) on the zygomatic bones. Arched cranial occiput with relatively distinct topography, the moderate torus below the *linea nuchae inferior* creates strong tuberosities on *planum nuchale* (*Figure 20c*). Mandible – high, distinctive chin, straight gonia.
Anthropometric characteristics: hyperdolichocrany, hypsicrany, acrocrany, eurymetopy

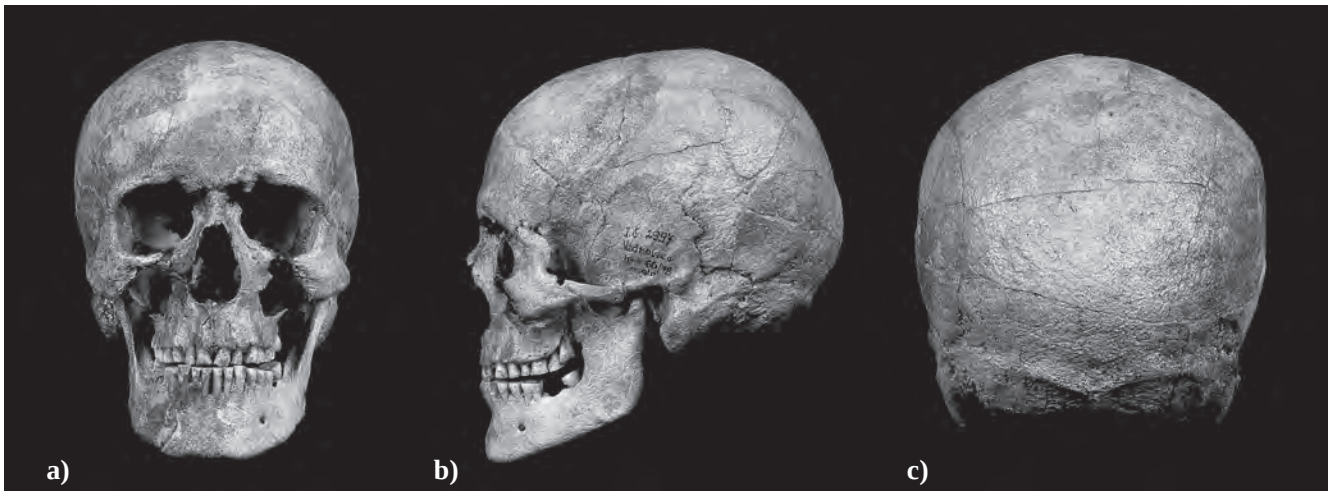


FIGURE 19a, b, c. Vedrovice No. 66/78. Frontal, lateral and occipital view of the skull of a 30–35-year-old male.

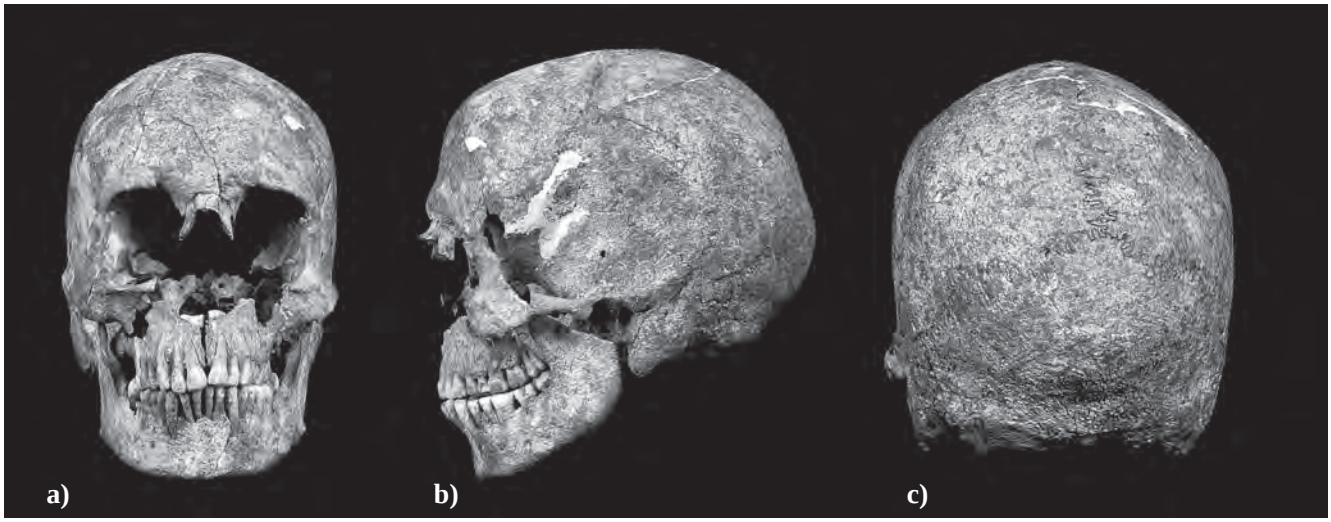


FIGURE 20a, b, c. Vedrovice No. 69/78. Frontal, lateral and occipital view of the skull of a 20–30-year-old male.

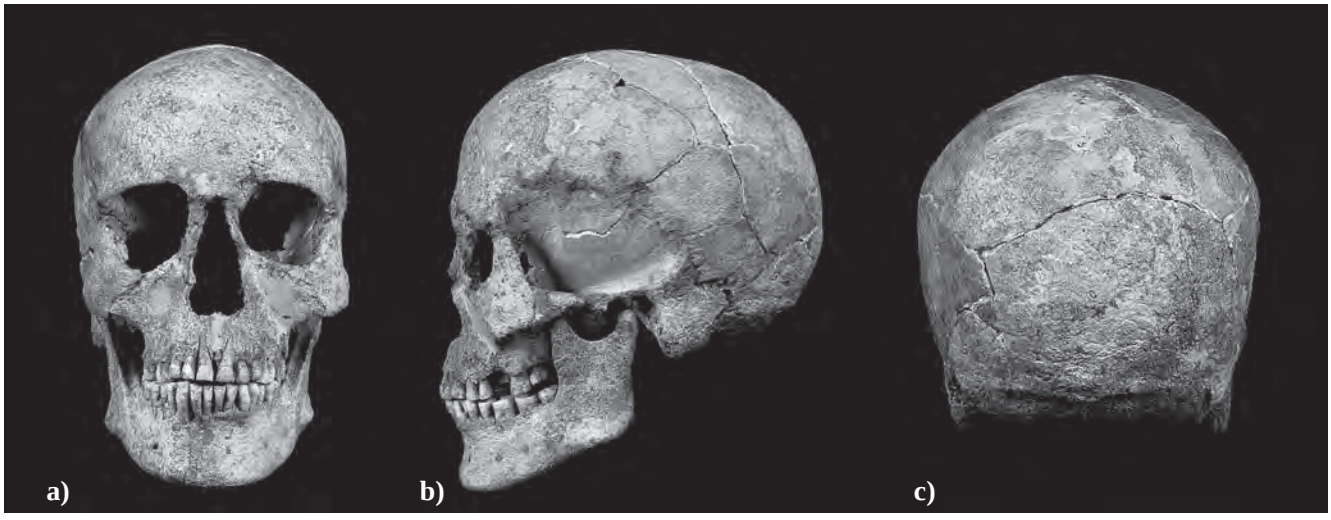


FIGURE 21a, b, c. Vedrovice No. 71/79. Frontal, lateral and occipital view of the skull of a 35–45-year-old male.

FIGURE 22a, b, c. Vedrovice No. 73/79. Frontal, lateral and occipital view of the skull of a 20–25-year-old male.

FIGURE 23a, b, c. Vedrovice No. 76/79. Frontal, lateral and occipital view of the skull of a 30–35-year-old male.

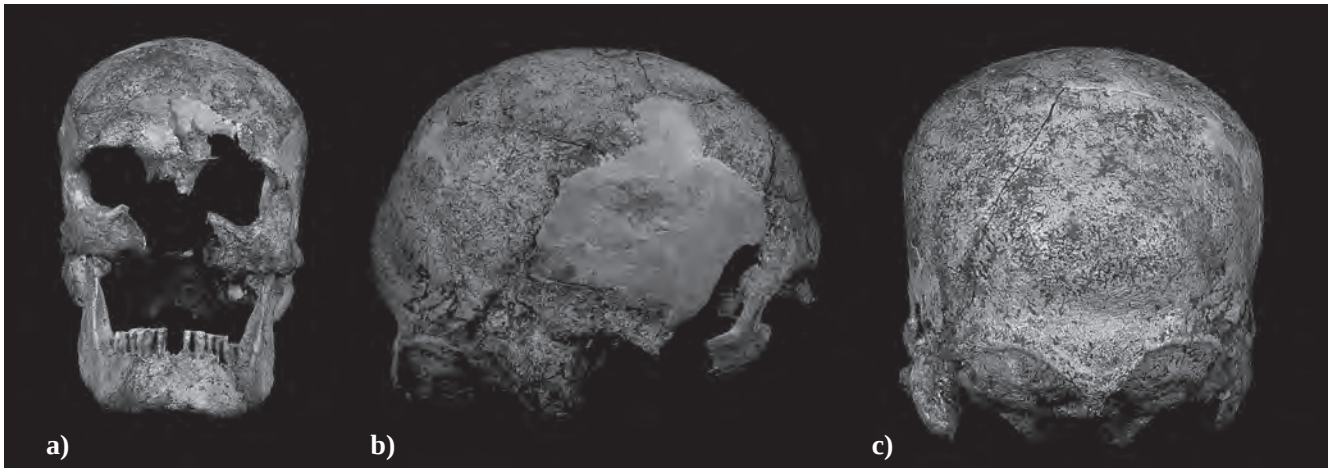


FIGURE 24a, b, c. Vedrovice No. 77/79. Frontal, lateral and occipital view of the skull of a 40–50-year-old male.

Postcranial finding: robust vertebrae, humeri with distinct *tuberositas deltoidea* and cavity *sulcus intertubercularis.* Hand bones *phalanges proximales* with bone lips in the middle parts. Femurs – large, robust, medium-developed pilaster, bone lips at *trochanter tertius*, strongly pilastric, stenomeric. Tibiae with distinct *tuberositas tibiae* in the proximal part, platycnemic. *Calcaneus dx.* with osteophytes.
Diseases: tibiae exhibit bone alterations at *margo anterior* – periosteoma; tibiae with Harris lines (*Figure 151*)
X-ray: claviculae – negative result

Burial 71/1979: Museum Inv. No. A 3002
Sex: male
Age: 35–45 yrs
Individual: very well preserved skeleton
Stature: 163.8 cm
Skull: low and wide forehead, moderate *arcus superciliares,* wide zygomatic bones, supramastoid crest on the temporal bone in form of a protuberance, robust mastoid (*Figure 21a, b*). Arched cranial occiput, weakly developed *torus occipitalis* on *planum nuchale* (*Figure 21c*). Mandible – short, high at symphysis, prominent chin, everted gonia.
Dental caries: maxilla – on both sides caries in M1, inside the alveoli remained only dental roots
Anthropometric characteristics: dolichostenomandibular
Postcranial finding: vertebrae and ribs are damaged. Humeri – slender, without tuberosities at the attachment sites of *m. deltoideus*. Ulnae – medium-sized, with medium-sized olecranons, indistinct tuberosities. Hand bones are almost complete, without distinct findings, five proximal phalanges exhibit short but distinct bone lips in the upper part. Pelvis is not complete. Femurs are slender, *trochanter tertius* forms a bony protuberance, *linea aspera* in form of a longitudinal ridge. Tibiae are incomplete.
X-ray: claviculae*,* tibiae – negative result

Burial 73/1979: Museum Inv. No. A 3004
Sex: male
Age: 20–25 yrs
Individual: very well preserved skeleton
Stature: 167.5 cm
Skull: high flat forehead, strong *arcus superciliares*, glabella of stage II, *processus marginalis* on the right wide zygomatic bone, damaged left orbit (*Figure 22a, b*). Large mastoids with long (3 cm) supramastoid crest (*Figure 22c*). Occipital bone is high, narrow, with distinct topography, the eminence *protuberantia occipitalis externa* is coracoid (drop-like) in shape (*Figure 72a, b*). Mandible – short, wide, with rounded chin, everted gonia, healthy teeth without caries.
Anthropometric characteristics: hyperdolichocrany, hypsicrany, acrocrany, eurymetopy, chamaeprosopy, mesoconchy, chamaeconchy, mesorrhiny, brachystaphyliny, ortognathy
Postcranial finding: robust vertebrae, *os sacrum* above the *facies articularis* exhibits on both sides round cavities. Humeri have the cavity *sulcus intertubercularis* in the proximal part between the eminences *tuberculum majus* and *minus*, perforated *fossa olecrani* (*Figure 78*). Ulna with deep cavity *incisura radialis* which passes over into the sharp ridge *crista musculi supinatoris* (*Figure 82*). Olecranons are short, wide, corrugated at *facies posterior*, probably due to permanent load. Hand bones have finger phalanges without lipping, but with longitudinal horizontal grooves. Pelvis is robust, with massive *facies auricularis*. Femurs – robust, with angular *linea aspera* running along the shaft (*Figure 94*), strongly developed pilaster, hyperplatymeric. Tibiae – flat, with distinct *tuberositas tibiae,* prominent anterior crests, platycnemic.
Diseases: tibiae with Harris lines (*Figure 152*)
X-ray: claviculae – negative result

Burial 76/1979: Museum Inv. No. A 3007
Sex: male
Age: 30–35 yrs
Individual: very well preserved skeleton
Stature: 163.1 cm
Skull: wide flat forehead, distinct *arcus superciliares,* medium-developed *lineae temporales, processus marginalis* on zygomatic bones, medium-sized mastoids (*Figure 23a, b*). Teeth – healthy, medium-abraded, all maxillary and mandibular M3 are absent. Cranial occiput is arched, slightly prominent, with a distinct *torus occipitalis* (*Figure 23c*) on *planum nuchale*. Mandible – short, angular chin, everted gonia.
Anthropometric characteristics: hyperdolichocrany, hypsicrany, acrocrany, eurymetopy, chamaeprosopy, meseny, mesoconchy, chamaerrhiny, leptostaphyliny, orthognaty, dolichostenomandibular
Postcranial finding: vertebrae without findings. Humeri have robust articular heads, cavity *sulcus intertubercularis* in the proximal part. The muscle attachment site *tuberositas deltoidea* is absent, perforated *fossa olecrani sin*. Hand bones exhibit lateral osteophytes at the margins of several phalanges, however, they do not represent any system (*Figure 91*), but the initial stage of growth, which is definitive in this adult male. *Os sacrum* is afflicted with spina bifida (*Figure 125*). Pelvis – robust, typically male, with large *facies auricularis.* Femurs have *trochanter tertius* on the lateral side of the proximal part, *linea aspera* forms a ridge. Tibiae are robust, very flat. Foot bones are complete, *calcanea* with distinct spurs.
Diseases: tibiae with Harris lines; *os sacrum* afflicted with *spina bifida* (*Figure 125*)
X-ray: claviculae – negative result

Burial 77/1979: Museum Inv. No. A 3008
Sex: male
Age: 40–50 yrs
Individual: very well preserved skeleton
Stature: 166.5 cm
Skull: missing cranial base, lower margin of the frontal

bone is damaged – extant is the half with distinct *arcus superciliares,* wide forehead and zygomatic bones (*Figure 24a*). Large mastoids, long (3 cm) supramastoid crest (*Figure 24b*). Occipital region is extremely prominent, with distinct topography (*Figure 24c*). *Protuberantia occipitalis externa* is coracoid in shape, with an eminence (*Figure 73a, b*). Maxilla holds strongly abraded teeth; mandible is strong, with indicated chin, and everted gonia.
Dental caries: mandible – on the left side caries in M2 and M3, inside the alveoli remained only dental roots
Anthropometric characteristics: mesocrany, hypsicrany, acrocrany
Postcranial finding: cervical, thoracic and lumbar vertebrae with osteophytes. *Clavicula dx.* exhibits a distinct tuberosity in the medial part (*Figure 163*). Humeri have massive articular heads, cavity *sulcus intertubercularis* in the proximal part, distinct rough deltoid tuberosities, perforated *fossa olecrani sin.* Ulnae exhibit curvated sharp crests in the proximal part (*Figure 86*). On *phalanges proximales* of the fingers there are bone lips in the middle parts (*Figure 89*). Pelvis is massive. Femurs – distinctive *tuberositas glutaea*, longitudinally running *linea aspera*, weakly developed pilaster, eurycnemy. Tibiae – mesocnemic. *Calcaneus sin.* with a bone spur.
Diseases: tibiae with Harris lines (*Figure 153*)
Finding: extremely developed *protuberantia occipitalis externa* (*Figure 162*)
X-ray: claviculae – negative result

Burial 79/1979: Museum Inv. No. A 3010
Sex: male
Age: 25–35 yrs
Individual: very well preserved skeleton
Stature: 169.3 cm
Skull: gracile *calvaria* without cranial base (*Figure 25a*). Arched forehead, medium-sized mastoids (*Figure 25b, c*). Cranial occiput is arched, with distinct topography at *linea nuchae suprema* and *superior* (*Figure 74a, b*). Mandible – prominent chin, the right *ramus* is absent, teeth without caries, strongly abraded.
Anthropometric characteristics: metriometopy
Postcranial finding: vertebrae are incomplete, the body of L1 is reduced in height and compressed, with bone lip at the margin, L2 has osteophytes at the body perimeter (*Figures 135; 132a, b*). *Clavicula sin.* exhibits the tubercle *tuberculum conoideum*. Humeri with large articular heads, *tuberculum majus* in form of a protuberance, and cavity *sulcus intertubercularis* (*Figure 79*). Ulna with deep cavity *incisura radialis* passing over into the sharp ridge *crista musculi supinatoris.* Hand bones *phalanges proximales* with lateral lips only on the right side (*Figure 92).* Femurs – robust, the distinct *linea pectinea* below the trochanters has the form of bony crests, angular *linea aspera*, strongly developed pilaster, eurymery. Tibiae – robust, mesocnemic.
Diseases: lowered vertebral body with osteophytes in L1; tibiae with Harris lines (*Figure 154*)
X-ray: claviculae – negative result

Burial 82/1979: Museum Inv. No. A 3013
Sex: male
Age: 50+ yrs
Individual: very well preserved skeleton
Stature: 175.8 cm
Skull: the left half of the maxilla and a part of the left orbit are missing (*Figure 26a*). The frontal bone is wide, with massive *arcus superciliares,* glabella of stage III, arched forehead (*Figures 26b, 75a*). On the left side of the skull above the temporal bone there is an osteoma (*Figure 140*). Supramastoid crest of the parietal bone forms a protuberance with a robust mastoid below. The occipital bone is high, with distinct topography, and prominent *protuberantia occipitalis externa* in form of an arch (*Figures 26c, 75b*).
Anthropometric characteristics: dolichocrany, hypsicrany, acrocrany, eurymetopy, chamaeconchy
Postcranial finding: lumbar vertebrae are missing, cervical and thoracic vertebrae without findings. The left humerus – damaged distally and proximally, smooth topography, *crista tuberculi minoris* forms a protuberance.
An amputation could be detected in the left forearm (Crubézy 1969). The right humerus has a massive articular head, in the middle it is deflected and hypertrophied, smooth on the surface, without tuberosities. The left forearm is very robust, particularly the ulna has a massive *olecranon*, at *facies medialis* it is wide and corrugated in shape. Most distinctive is the eminence at *crista musculi supinatoris*, at the attachment site of *m. supinator* there is a deep cavity (*Figure 84*). Ulna and radius are rather massive, probably due to permanent load on the right hand and the elbow joint. Hand bones exhibit bone lips in eight extant *phalanges proximales* in the lower part of fingers. Pelvis is well preserved, with typical male traits. Femurs – robust, with large articular heads, lateral ridge *linea pectinea* and angular *linea aspera*, medium-developed pilaster, eurymery. Tibiae – medium-sized, distinct *tuberositas tibiae*, distinctive S-curved anterior crests, eurycnemy; the right *calcaneus* with a bone spur.
Diseases: tibiae with Harris lines (*Figure 155*)
Finding: extremely developed *protuberantia occipitalis externa*
X-ray: claviculae – negative result

Burial 88/1980: Museum Inv. No. A 11312–11343
Sex: male
Age: 20–30 yrs
Individual: incomplete skeleton with damaged skull
Stature: 158.3 cm
Skull: cranial fragments
Postcranial finding: humeri with smooth surface without tuberosities, and with articular heads. The forearm bones are medium-sized, indistinct, without ridges. Hand skeleton – incomplete, very gracile bones. Eight proximal phalanges of fingers exhibit longitudinal bone lips. *Incisura ischiadica*

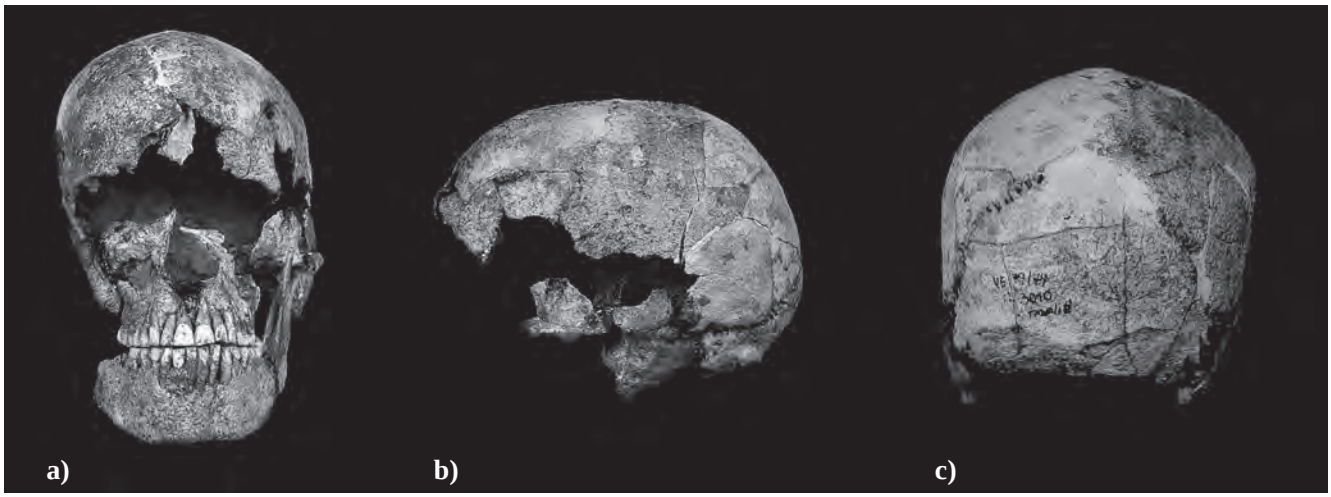


FIGURE 25a, b, c. Vedrovice No. 79/79. Frontal, lateral and occipital view of the skull of a 25–35-year-old male.

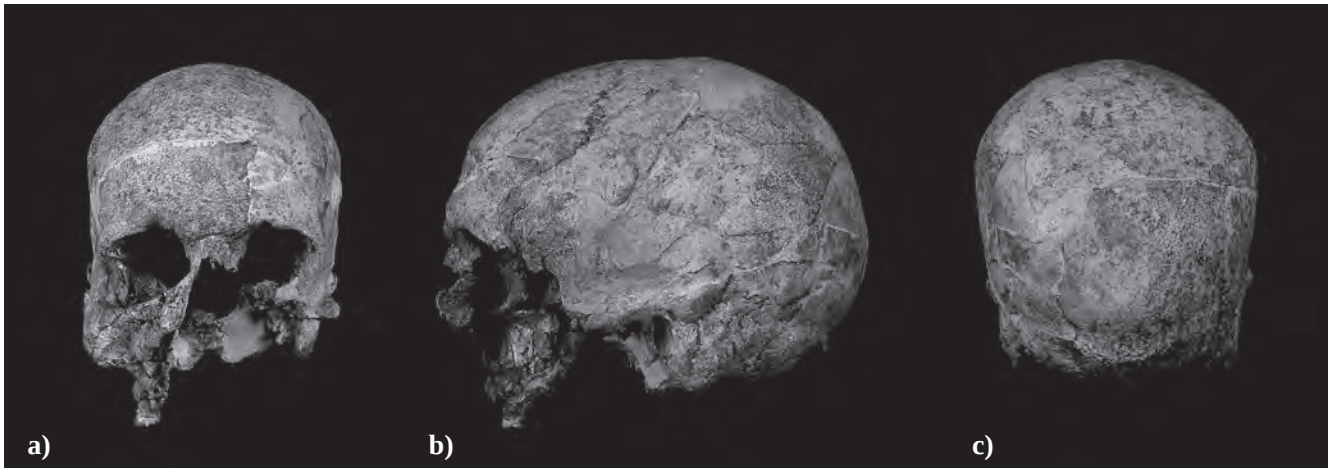


FIGURE 26a, b, c. Vedrovice No. 82/79. Frontal, lateral and occipital view of the skull of a 50-year-old male.

FIGURE 27a, b, c. Vedrovice No. 99/81. Frontal, lateral and occipital view of the skull of a 30-year-old male.

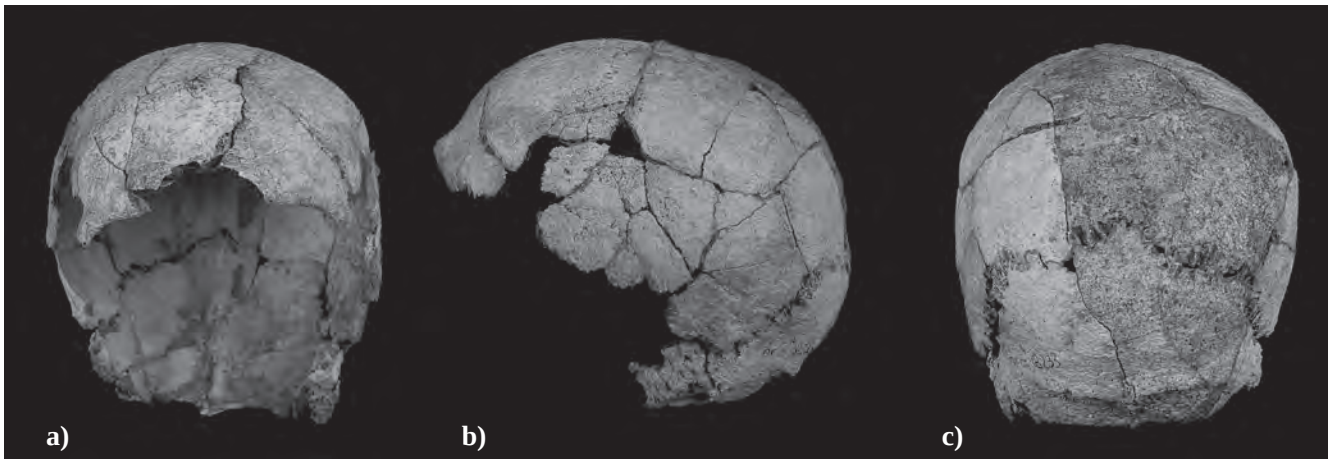


FIGURE 28a, b, c. Vedrovice No. 2/85. Frontal, lateral and occipital view of the skull of a 25–30-year-old male.

major on the right side of the pelvis is closed, the pelvic shape is not clear, indicating rather a female skeleton. The left femur – slender, indicated longitudinal *linea aspera*, medium-sized articular heads, undeveloped pilaster, platymery. Tibiae – flat, slender, without any distinct ridges, mesocnemic.
Diseases: tibiae with Harris lines (*Figure 156*)

Burial 95/1980: Museum Inv. No. A 11470–11471
Sex: male
Age: 50–60 yrs
Individual: half skull, bone fragments
Skull: partial left half of the skull with orbit, and with temporal bone with massive mastoid. Maxilla without teeth, only on the left side C root, P1, cyst in M1, preserved M2.
Dental caries: cyst in maxillary M1 – caries

Burial 99/1981: Museum Inv. No. A 11542–11564
Sex: male
Age: 30 yrs
Individual: preserved skeleton
Skull: the left half of the skull is missing (*Figure 27a, b*). Recessive frontal bone, medium-sized zygomatic bone and mastoid, arched cranial occiput with moderate eminence *protuberantia occipitalis externa* (*Figure 27c*). Mandible – long, rounded chin, everted gonia.
Dental caries: caries in the left mandibular M2
Anthropometric characteristics: hypsiconchy
Postcranial finding: damaged vertebrae, without findings. The right humerus with massive articular head and perforated *fossa olecrani*. Long bones are slender, rather gracile – smooth humeri and forearm bones without tuberosities, ulnae are deflected below the olecranons. Preserved hand bones, ten *phalanges proximales* without lipping, smooth surface. Iliac wings are robust, of typical male shape. The left femur exhibits smooth topography, the right femur is slender. Massive articular heads and joints, indistinct *linea aspera*. Tibiae are medium-sized, very flat, with distinctive anterior crests, the right tibia is afflicted with suppurative inflammation (*Figure 139a, b*).
Diseases: tibiae with Harris lines (*Figure 157*); on the right tibia there is a round hole resulting from a bone inflammation
X-ray: claviculae – negative result

Burial 108/1984: Museum Inv. No. A 17535
Sex: male
Age: adult–senile
Individual: only postcranial skeleton without skull
Postcranial finding: vertebral fragments, from the left humerus only one epicondyle is preserved. Forearm bones are robust and damaged, finger phalanges without findings. Femurs with robust articular heads, distinct *linea aspera*. Tibiae – incomplete, with broken off proximal and distal ends.
X-ray: tibiae – negative result

Burial 2/1985: Museum Inv. No. A 18233
Sex: male
Age: 25–30 yrs
Individual: incomplete skeleton
Stature: 165.9 cm
Skull: *calvaria* with arched forehead, in the orbits *cribra orbitalia* (*Figure 28a, b*). Cranial occiput is arched, on the occipital bone *protuberantia occipitalis externa,* distinct topography of muscle attachment sites on *planum nuchale* (*Figure 28c*). Left half of the mandible, high distinct chin, straight gonia.
Anthropometric characteristics: eurymetopy
Postcranial finding: robust vertebrae without findings. The right humerus with distinct *tuberculum majus* separated by the cavity *sulcus intertubercularis* with a bone depression (*Figure 76*). From the forearm there is the right ulna with *crista musculi supinatoris* growing into a flat shape. *Olecranon* is robust, corrugated at *facies posterior*. Pelvis – robust, with typical male traits. From the lower extremities there is the proximal part of the right femur with massive articular head, *linea aspera* runs along the shaft and forms a ridge.
Diseases: *cribra orbitalia* (*Figure 147*)

Finding: bone depression
X-ray: claviculae – negative result

Burial 14/1997: Museum Inv. No. A 22670
Sex: male
Age: 18–20 yrs
Individual: two bones
Skull: the right parietal bone – very thick
Postcranial finding: proximal part of the femur without articular head

Determination of Females (*Figure 29*)

Burial 9/1974: Museum Inv. No. A 1628
Sex: female
Age: 50–60 yrs
Individual: well preserved skeleton
Stature: 162.1 cm
Skull: low and recessive forehead, weakly developed *arcus superciliares*, flat glabella, damaged cranial base, medium-sized mastoids (*Figure 30a, b*). Cranial occiput is slightly prominent on *planum nuchale*, weakly developed *torus occipitalis* (*Figure 30c*). Mandible – senile, with all teeth lost intravitally, alveoli vanished through mastication. The right *ramus* of the mandible is hypoplastic, compared to the left one.
Anthropometric characteristics: dolichocrany, orthocrany, acrocrany, eurymetopy, metriocrany, hypereuryeny, hyperchamaeprosopy, chamaeconchy, mesoconchy, leptorrhiny, orthognathy, mesomandibular
Postcranial finding: deformative spondylosis caused an affliction of vertebral column, growth of osteophytes in thoracic (*Figure 99*) and lumbar (*Figure 129a, b*) regions. Costal region exhibits a porous surface, and bone margins overgrown by 4–5 mm (*Figure 141*). Humeri – medium-sized, *tuberculum majus sin.* in form of a tubercle, distinct *crista tuberculi majoris*, rough attachment site *tuberositas deltoidea* in the middle part of the shaft. *Phalanges proximales* with lateral longitudinal lips from the attachment of short flexors (*Figure 111*). Pelvis exhibits postpartum groove *sulcus praeauricularis,* the female had delivered (*Figure 116*). Femurs are strongly pilastric, platymeric. Tibiae – platycnemic.
Diseases: hypoplasia in the left *ramus mandibulae*; osteophytes in thoracic and lumbar vertebrae with Schmorl's nodes
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 13/1975: Museum Inv. No. A 2277
Sex: female
Age: adult
Individual: incomplete skeleton
Stature: 148.8 cm
Skull: the left half of the skull with flat glabella, medium-sized mastoid, arched cranial occiput (*Figure 31a*). Maxilla and mandible are isolated (*Figure 31b*), mandible with

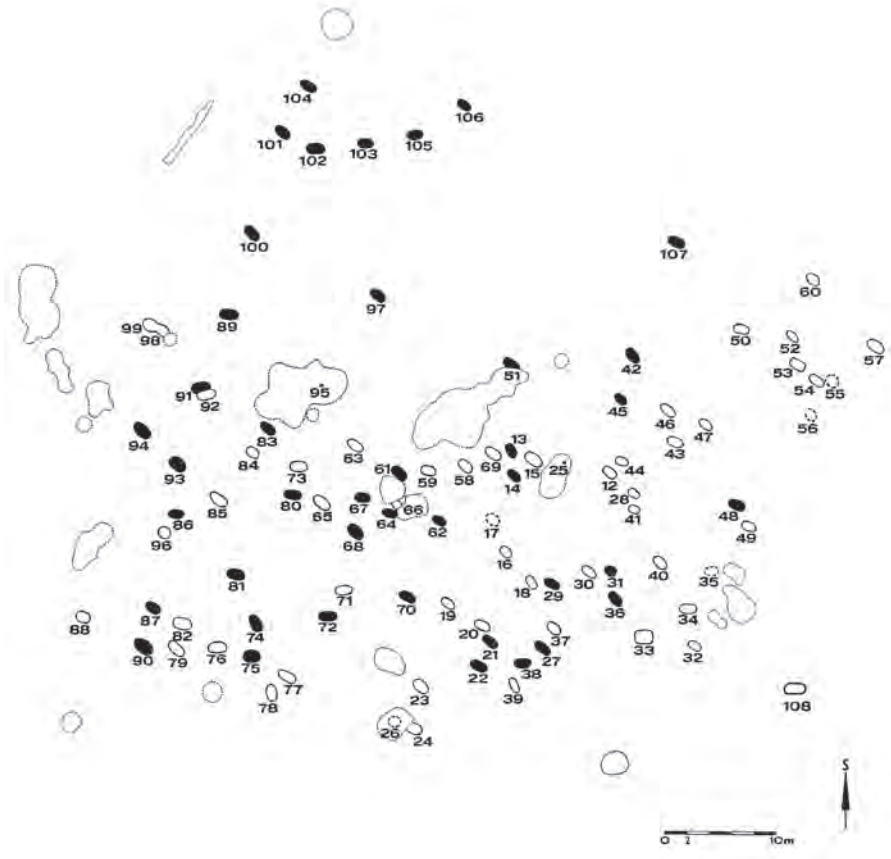


FIGURE 29. Vedrovice, "Široká u lesa" – plan of the cemetery with female burials marked in black.

distinct chin, straight gonia (*Figure 31c*).
Dental caries: maxilla – caries in the left P2, M1, M2; mandible – dental fistula in P1, P2
Postcranial finding: damaged vertebrae. Humeri are slender, with smooth surface, forearm bones are medium-sized. *Phalanges proximales* with weakly developed longitudinal bone lips in five fingers. Damaged pelvis, medium-sized femurs with distinct ridges at *linea aspera.* Tibiae – medium-sized.
X-ray: tibiae – negative result

Burial 14/1975: Museum Inv. No. A 2278
Sex: female
Age: 35–40 yrs
Individual: cranial fragments, postcranial skeleton
Stature: 155.1 cm
Skull: *os zygomaticum sin.*, the left mastoid, incomplete parietal bone
Postcranial finding: vertebrae without osteophytes, lumbar vertebrae depressed in shape. The right humerus with distinct *tuberculum majus,* the left one without articular head. The shafts of both humeri are divided – disconnected below the ridge *crista tuberculi minoris* by the deep cavity *sulcus intertubercularis,* the bone depression is caused by physical load (*Figure 102*). Bow-like deflected ulnae, a cavity below the *incisura radialis*, a distinct tuberosity at the attachment site of *m. supinator*, sharp *crista musculi supinatoris*. Hand bones are incomplete, on four *phalanges proximales* there are bone lips in the middle part of the fingers. The left iliac wing, the female had delivered, the left femur with a distinct *linea aspera.* Tibiae – medium-sized, platycnemic.
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 21/1975: Museum Inv. No. A 2285
Sex: female
Age: 30–40 yrs
Individual: incomplete skeleton
Stature: 159.7 cm
Skull: *calvaria* without cranial base. Arched forehead, flat glabella, orbits with sharp margins, in the right orbit *cribra orbitalia*, distinct *linea temporalis,* medium-sized mastoids (*Figure 32a*). Arched cranial occiput, on *planum nuchale* a distinct topography and *torus occipitalis* (*Figure 32b*). Mandible – medium-sized, with rounded chin, straight gonia (*Figure 32c*).
Dental caries: mandible – alveolar fusion at P1, caries in P1, M1, M3.
Anthropometric characteristics: dolichocrany, hypsicrany, acrocrany, eurymetopy
Postcranial finding: incomplete vertebrae. Humeri – gracile, deep cavity *sulcus intertubercularis,* indistinct deltoid tuberosities, perforated *fossa olecrani.* Gracile forearm, incomplete hand bones, *phalanges proximales* with longitudinal bone lips overgrown by 2 mm, *phalanges mediae* with bone lips in the middle part of the fingers (*Figure 112*). Femurs are slender, with distinct *linea aspera*. The joint in the right femur is directed steeply upwards; this different collo-diaphyseal angle caused waddling gait, limping? Tibiae are not extant.
Diseases: *cribra orbitalia* in the right orbital roof
Finding: steep collo-diaphyseal angle in *femur dx.* (*Figure 126*)

Burial 22/1975: Museum Inv. No. A 2286
Sex: female
Age: 35–45 yrs
Individual: well preserved skeleton
Stature: 154.1 cm
Skull: arched forehead with flat glabella, medium-sized mastoids (*Figure 33a, b*). Arched cranial occiput, slightly prominent on *planum nuchale*, distinct bow-shaped *torus occipitalis* (*Figure 33c*). Maxilla – on both sides alveolar fusion, caries. Mandible – short, gracile, with rounded chin, everted gonia, M3 is absent.
Dental caries: maxilla – on both sides alveolar fusion in M1–M3, suppurative inflammation, fistula in the left P2. Mandible – on both sides M2 and M3 not erupted, caries in P2.
Anthropometric characteristics: mesocrany, orthocrany, metriocrany, hypsicrany, metriometopy, leptoprosopy, hyperchamaeprosopy, hypsiconchy, mesoconchy, mesorrhiny, dolichocrany, orthognathy, dolichostenomandibular
Postcranial finding: complete vertebrae, in L3 an osteophyte at the body perimeter (*Figure 101*). Humeri have deep cavity *sulcus intertubercularis*, *tuberculum majus* and *tuberculum minus* in form of protuberances, topography of deltoid tuberosities is hypertrophic in the upper third of the bone. Ulnar ridges on *corpus ulnae* with *margo interosseus* are sharp, along the *crista musculi supinatoris* there are deep cavities (*Figure 105*). Hand bones *phalanges proximales* with bone lips in the upper part of the fingers (*Figure 113*). On the extant right half of the pelvis there is a very deep preauricular sulcus (*Figure 118*), the female had delivered. Femurs are robust, with distinct *linea aspera*, strongly pilastric, platymeric. Tibiae – platycnemic.
Diseases: bone lips in L3 (*Figure 101*)
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 27/1976: Museum Inv. No. A 2291
Age: 20+ yrs
Sex: female
Individual: incomplete skeleton
Skull: the right half of a gracile skull, *calvaria*, open sutures, small mastoids, arched cranial occiput, two permanent teeth
Postcranial finding: skeletal fragments – humerus, ulna, femur and partial tibiae
Finding: the teeth do not inevitably belong to the skeleton, but the overall condition of bones – finished ossification and other attributes – indicate that this is a skeleton of an adult female

FIGURE 30a, b, c. Vedrovice No. 9/74. Frontal, lateral and occipital view of the skull of a 50–60-year-old female.

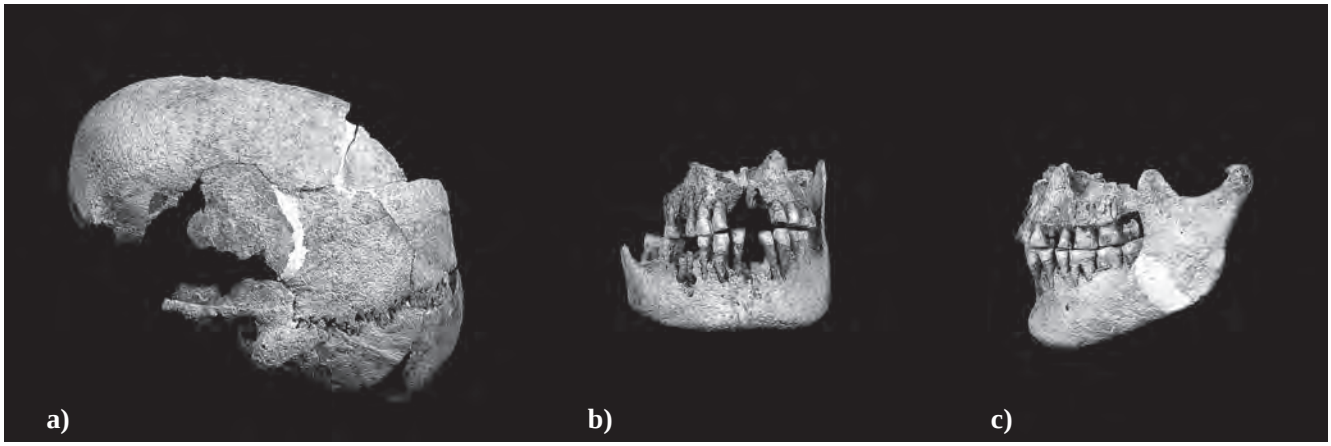


FIGURE 31a, b, c. Vedrovice No. 13/75. Lateral view of the skull, and frontal and lateral view of the mandible with maxilla of an adult female.

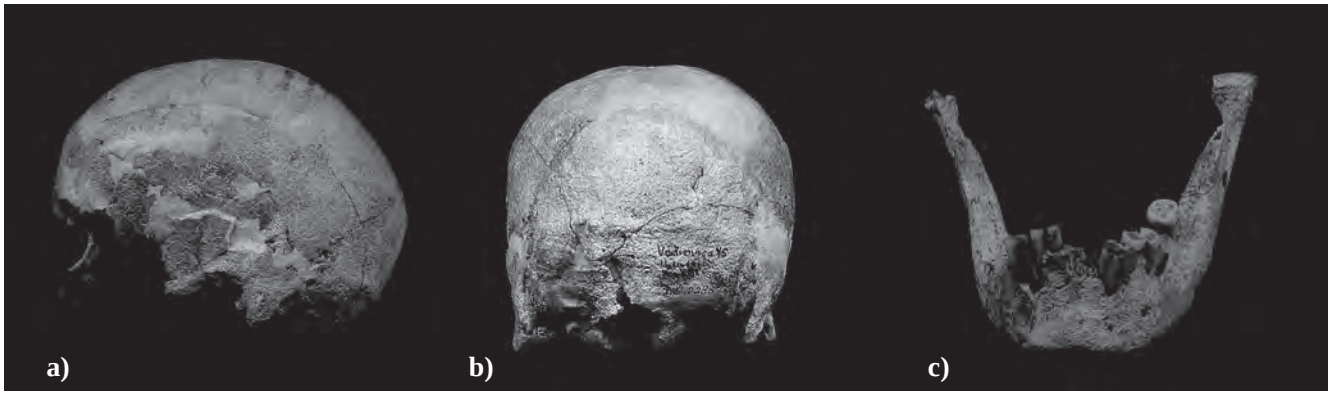


FIGURE 32a, b, c. Vedrovice No. 21/74. Lateral and occipital view of the skull, and frontal view of the mandible of a 30–40-year-old female.

FIGURE 33a, b, c. Vedrovice No. 22/76. Frontal, lateral and occipital view of the skull of a 35–45-year-old female.

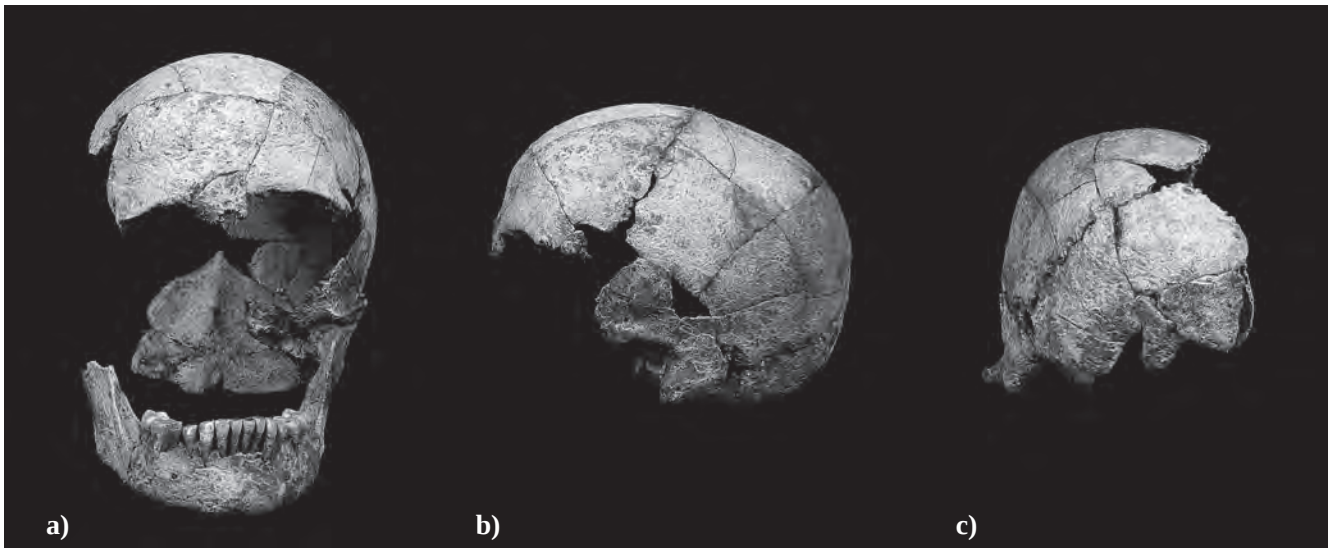


FIGURE 34a, b, c. Vedrovice No. 29/76. Lateral view of the skull of an 18–20-year-old female.

FIGURE 35a, b, c. Vedrovice No. 36/76. Frontal, lateral and occipital view of the skull of a 45–50-year-old female.

Burial 29/1976: Museum Inv. No. A 2293
Sex: female
Age: 18–20 yrs
Individual: incomplete skeleton
Skull: the left half of the skull without cranial base, small mastoids, smooth cranial occiput (*Figure 34a, b, c*). Maxilla is gracile, with healthy teeth. Mandible – short, with rounded chin, straight gonia, M3 not erupted.
Dental caries: mandible – fistula in the right P2
Postcranial finding: fragments. Humerus exhibits a distinct tuberculoid formation *tuberositas deltoidea*, ulna bears traces of distinctive alterations, hypertrophy in the elbow joint. Hand bones with damaged finger phalanges.
Diseases: Schmorl's node in lumbar vertebra (*Figure 127*)
X-ray: mandible with absent, completely undeveloped M3

Burial 31/1976: Museum Inv. No. A 2292
Sex: female
Age: adult
Individual: skeletal fragments
Postcranial finding: distal portion of a humerus from an adult individual

Burial 36/1976: Museum Inv. No. A 2297
Sex: female
Age: 45–50 yrs
Individual: incomplete skeleton
Stature: 157 cm
Skull: the right side of the skull is missing, cranial base is damaged (*Figure 35a*). Flat forehead, wide *os zygomaticum dx*., small *processus marginalis* (*Figure 35b*); mandible – short, with distinct chin, everted gonia. Medium-sized mastoid, arched cranial occiput, distinctive *protuberantia occipitalis externa* in form of a longitudinal torus (*Figure 35c*).
Anthropometric characteristics: hyperdolichocrany, hypsicrany, acrocrany, hypsiconchy, dolichostenomandibular
Postcranial finding: vertebrae without findings. The right humerus with cavity *sulcus intertubercularis* and distinctive attachment site *tuberositas deltoidea*, the left humerus is damaged. Hand bones *phalanges proximales* without lipping. Pelvis with deep *sulcus praeauricularis,* the female had delivered. Femurs – rather robust, both of them exhibit distinctly shaped trochanters and *tuberositas glutaea*; *femur dx.* – distinct *trochanter tertius,* undeveloped pilaster, hyperplatymery. Tibiae – eurycnemic.
Diseases: tibiae with Harris lines (*Figure 158*)
X-ray: claviculae – negative result

Burial 38/1976: Museum Inv. No. A 2302
Sex: female
Age: 30–35 yrs
Individual: incomplete skeleton
Stature: 144.7 cm
Skull: *calvaria* with damaged forehead (*Figure 36a*), missing cranial base and mastoids (*Figure 36b*), arched cranial occiput without tuberosities (*Figure 36c*). Mandible – short, the right *ramus* is missing, distinct chin, straight gonia.
Anthropometric characteristics: dolichocrany
Postcranial finding: vertebral fragments. Humeri are very gracile and slender, the right one without articular head, the upper third of the bone exhibits a rough topography. Forearm bones are gracile to thin, ulnae adapted. Hand bones show lateral bone lips in five *phalanges proximales*. On the pelvis there is a deep *sulcus praeauricularis,* the female had delivered. Femurs – slender, without any distinct tuberosities, undeveloped pilaster, platymery. Tibiae – slender, gracile, with sharp ridge, platycnemic.
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 42/1977: Museum Inv. No. A 2301
Sex: female
Age: 20–30 yrs
Individual: skeleton without skull
Stature: 169 cm
Skull: only fragmentary, damaged. Mandible and partial maxilla are robust.
Dental caries: mandible – on both sides alveolar fusion in M1
Postcranial finding: damaged vertebrae. Humeri without articular heads, indistinct muscle attachment sites. Ulnae are bow-like deflected, with deep cavity *incisura radialis* and sharp ridge *crista musculi supinatoris* (*Figure 106*). *Olecranon* is robust, corrugated at *facies posterior*. Hand bones are complete, *phalanges proximales* exhibit longitudinal bone lips in the middle part. The right iliac wing with very deep *sulcus praeauricularis,* the female had delivered. Femurs – incomplete, only proximal parts, strongly pilastric, eurycnemic. Tibiae – mesocnemic.
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 45/1977: Museum Inv. No. A 2305
Sex: female
Age: 35–45 yrs
Individual: gracile skeleton
Skull: *calvaria* (*Figure 37a*), small mastoids (*Figure 37b*), arched cranial occiput with indicated small *protuberantia occipitalis externa* (*Figure 37c*). Mandible – short, high at symphysis, with slightly prominent chin, everted gonia, teeth without caries.
Postcranial finding: vertebrae are not extant, humeri are gracile, slender, without tuberosities. Ulnae with sharp ridge *crista musculi supinatoris*. Hand bones are incomplete, *phalanges proximales* exhibit longitudinal bone lips in the middle part of the fingers. Femurs – long, slender, without any distinct attachment sites or tuberosities, weakly developed pilaster, eurymery. Tibiae – damaged.
X-ray: claviculae – negative result

Burial 48/1977: Museum Inv. No. A 2307
Sex: female
Age: 18–25 yrs
Individual: incomplete skeleton
Stature: 154.9 cm
Skull: deformed *calvaria* (*Figure 38a*), medium-sized mastoids (*Figure 38b*), arched cranial occiput (*Figure 38c*). Mandible – short, with rounded chin, straight gonia, tiny and healthy teeth; maxilla holds a complete dentition.
Anthropometric characteristics: tapeinocrany, dolichostenomandibular
Postcranial finding: damaged vertebrae. Humeri – gracile, slender, with small articular heads, indistinct deltoid tuberosity, perforated *fossa olecrani*. Forearm is gracile, the right ulna with sharp ridge *crista musculi supinatoris.* Hand bones are complete, *phalanges proximales* without findings. On the right iliac wing there is a very weakly developed groove – praearicular sulcus? Femurs – slender, medium-sized *linea aspera*, undeveloped pilaster, platymery; tibiae – slender, eurycnemic.
X-ray: claviculae*,* tibiae – negative result

Burial 51/1977: Museum Inv. No. A 2309
Sex: female
Age: 45–55 yrs
Individual: partial skeleton
Skull: minute fragments, isolated teeth
Postcranial finding: damaged skeleton, femoral shafts without proximal and distal parts, indistinct *linea aspera*. Tibiae – very flat, only tibial shafts without proximal and distal parts.

Burial 61/1978: Museum Inv. No. A 2993
Sex: female
Age: 40–50 yrs
Individual: skeletal fragments
Skull: the left part of the temporal and occipital bone, small mastoid, fragments of parietal bones. The occiptal bone exhibits a distinct, prominent topography, *protuberantia occipitalis externa* of wavy shape.
Postcranial finding: costal fragments, from femurs there are only the shafts with indicated *linea aspera*. The left tibia is flat, without proximal and distal part, with sharp anterior crest.

Burial 62/1978: Museum Inv. No. A 2994
Sex: female
Age: 30–40 yrs
Individual: incomplete skeleton
Skull: gracile *calvaria*, arched forehead, glabella of stage I, orbits with sharp margins, small mastoids. Arched cranial occiput with smooth topography. From the mandible there is only the left half, small, gracile, with rounded chin, absent M3.
Dental caries: maxilla – on both sides caries in M1
Postcranial finding: damaged vertebrae and ribs. From humeri there are only the shafts with smooth surface without tuberosities. Ulnae with deep cavity *incisura radialis* and a sharp ridge *crista musculi supinatoris*. Pelvic fragments; femurs are distally damaged, flat, with medium-developed *linea aspera*, undeveloped pilaster, platymery. Tibiae – flat, damaged.
X-ray: tibiae – negative result

Burial 64/1978: Museum Inv. No. A 2996
Sex: female
Age: 18–25 yrs
Individual: gracile skeleton
Stature: 138.7 cm
Skull: *calvaria*, arched forehead, glabella of stage I, orbits with damaged bottom margins (*Figure 39a*), small mastoids (*Figure 39b*). Arched cranial occiput with indistinct topography (*Figure 39c*). Mandible is small as though it were of a child, gonia are turned inside the mandible. Maxilla – on the left side there is a defect, C is not erupted inside the alveolus, but at the maxillary margin.
Anthropometric characteristics: dolichocrany, eurymetopy, dolichostenomandibular
Postcranial finding: pathological vertebrae; the fusions in cervical, thoracic and lumbar vertebrae are designated as tuberculous (Crubézy 1969). Humeri – very gracile, articular heads at the stage of fusion, slender, smooth, without tuberosities, perforated *fossa olecrani*. Ulnae – gracile, deep *incisura radialis,* distinct *crista musculi supinatoris.* Incomplete hand bones, *phalanges proximales* are smooth, without findings. Pelvis is not fused, juvenile. Femurs – slender, the right articular head shows a steep collo-diaphyseal angle, the left articular head is reconstructed, weakly developed pilaster, hyperplatymery. Tibiae – eurycnemic.
Diseases: dental hypoplasias + retention in C; vertebral pathology – Schmorl's node; tibiae with Harris lines (*Figure 159*)
Finding: steep collo-diaphyseal angle
X-ray: claviculae – negative result

Burial 67/1978: Museum Inv. No. A 2998
Sex: female
Age: 35–45 yrs
Individual: incomplete skeleton
Skull: missing facial part, extant is the partial cranial vault and both of temporal bones, small mastoids. Cranial occiput is arched, slightly prominent, without any rough topography. From the maxilla there is only a fragment, from the mandible the right half with partial chin and straight gonia.
Postcranial finding: damaged vertebrae. Humeri without proximal and distal ends, smooth, without deltoid tuberosities. Gracile forearm – the right ulna with lateral distinct flat margin *margo interosseus*. Hand bones are incomplete, without findings. From the pelvis there are only parts of two gracile iliac wings. Femurs – rather robust, very flat, lateral attachment sites *tuberositas glutaea* forming deep cavities, topography of *linea aspera*

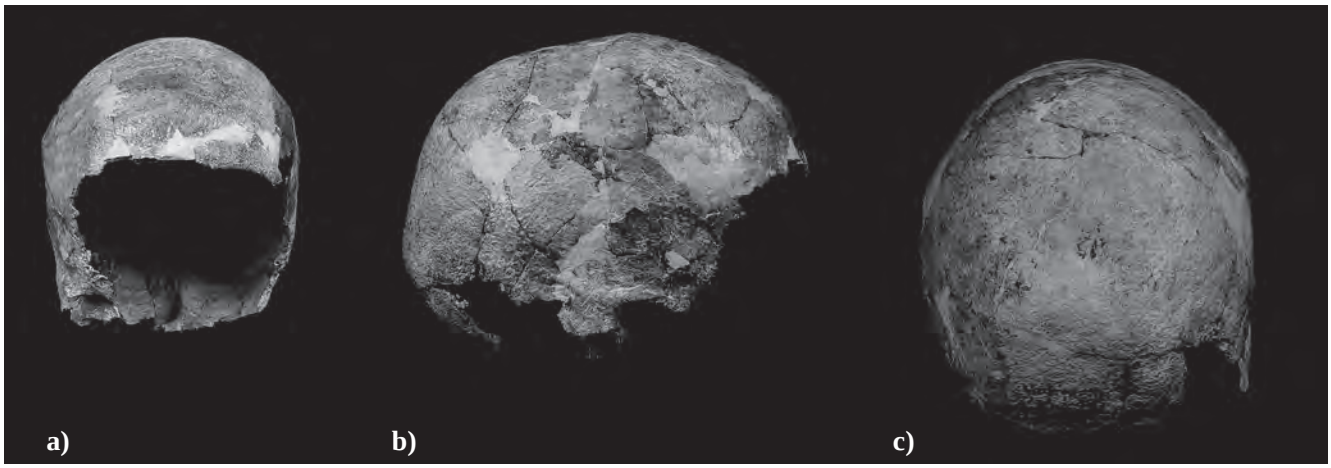


FIGURE 36a, b, c. Vedrovice No. 38/76. Frontal, lateral and occipital view of the skull of a 30–35-year-old female.

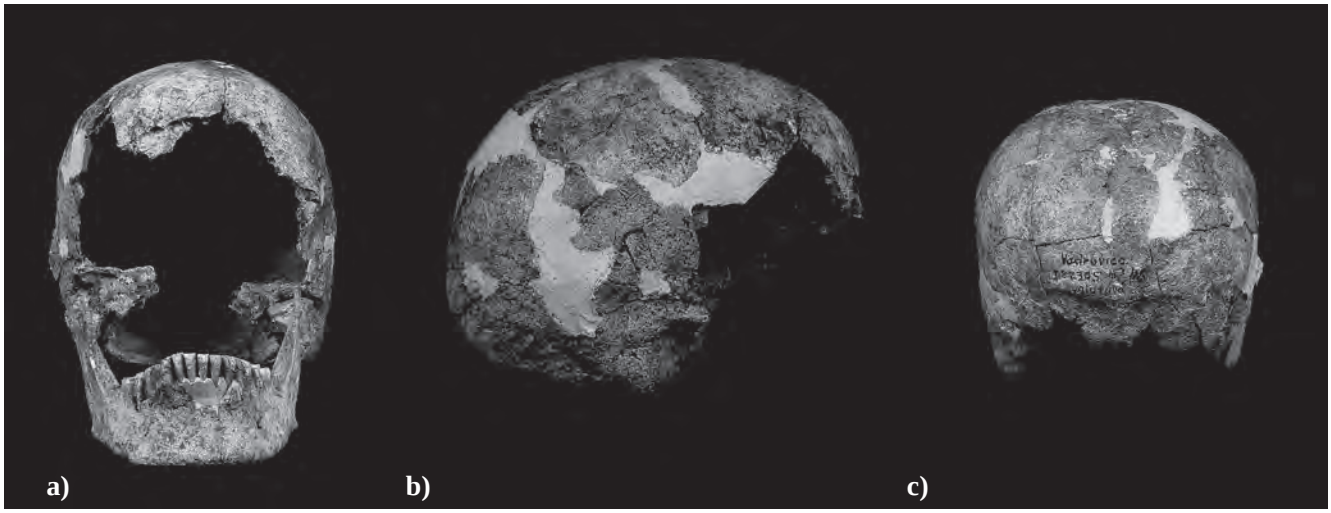


FIGURE 37a, b, c. Vedrovice No. 45/77. Frontal, lateral and occipital view of the skull of a 35–40-year-old female.

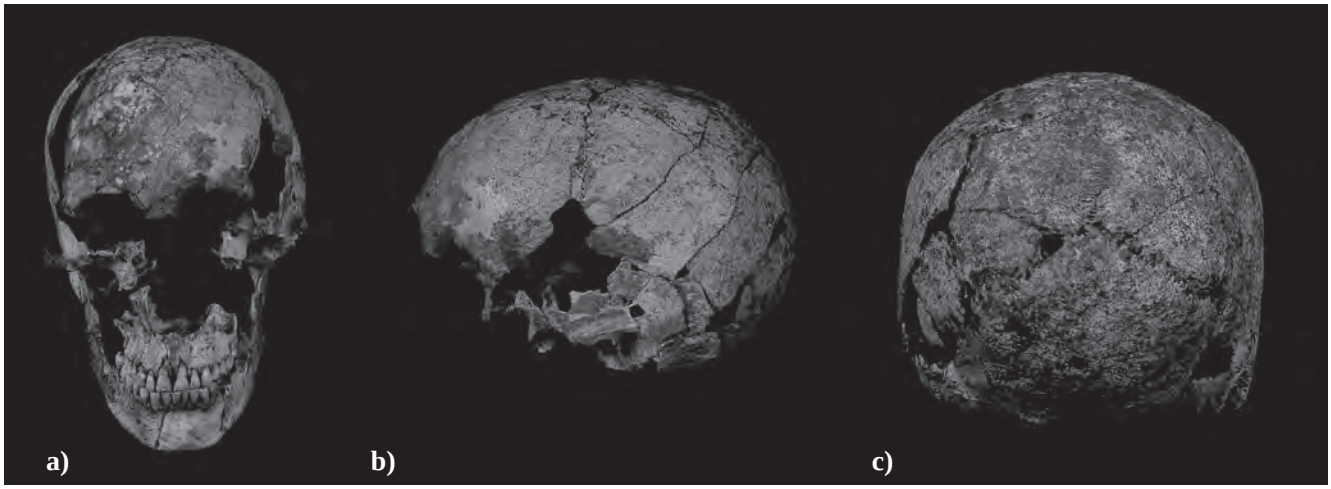


FIGURE 38a, b, c. Vedrovice No. 48/77. Frontal, lateral and occipital view of the skull of an 18–25-year-old female.

FIGURE 39a, b, c. Vedrovice No. 64/78. Frontal, lateral and occipital view of the skull of an 18–25-year-old female.

FIGURE 40a, b, c. Vedrovice No. 68/78. Frontal, lateral and occipital view of the skull of a 50-year-old female.

FIGURE 41a, b, c. Vedrovice No. 70/79. Frontal, lateral and occipital view of the skull of a 45–50-year-old female.

is missing, undeveloped pilaster, hyperplatymery. Tibiae – eurycnemic.
X-ray: claviculae, tibiae – negative result

Burial 68/1978: Museum Inv. No. A 2999
Sex: female
Age: 50+ yrs
Individual: well preserved skeleton
Stature: 151.3 cm
Skull: arched forehead, medium strong *arcus superciliares*, flat glabella (*Figure 40a*), on the zygomatic bones developed *processus marginalis,* medium-sized mastoids (*Figure 40b*).
Arched cranial occiput, below the nuchal line runs the ridge of *fossa transversa*, below *linea nuchae inferior* there is a moderate torus (*Figure 40c*). Maxillary I2 on both sides have occlusal surfaces grooved from using teeth repeatedly as a tool (*Figure 96*). Mandible – wide, with prominent chin, everted gonia, intravitally lost teeth.
Dental caries: alveolar fusions in the maxilla
Anthropometric characteristics: dolichocrany, hypsicrany, acrocrany, metriometopy, leptoprosopy, hyperlepteny, mesoconchy, orthognathy, dolichostenomandibular
Postcranial finding: thoracic and lumbar vertebrae with osteophytes and bone lips on vertebral bodies. Humeri with bended articular heads, *tuberculum majus* in form of a protuberance, very deep *sulcus intertubercularis*, *crista tuberculi minoris* exhibits rough topography in the upper third which compensates the indistinct attachment sites *tuberositas deltoidea* (*Figure 103*). Ulnae are very gracile, the left one with distinctly hypertrophic proximal part, at the *olecranon* there is a deepened *sulcus radialis* with sharp ridge *margo interosseus* (*Figure 110*). Hand bones *phalanges proximales* with longitudinal bone lips, *phalanges mediae* with bone lips in the lower part. Iliac wings are robust, on both of them there are two deep postpartum grooves, the female had delivered (*Figure 119*). Femurs – robust, in the upper third below the trochanters with somewhat rougher topography, an indistinct *linea aspera* in the middle part, undeveloped pilaster, hyperplatymery. Tibiae – eurycnemic.
Diseases: arthritic osteophytes on vertebral bodies; tibiae with Harris lines (*Figure 160*)
Injuries: teeth used as a work tool for dragging cords (*Figure 96*).
Finding: increased load in the joint of the left hand, bone lipping on *phalanges proximales* and *phalanges mediae*
X-ray: claviculae – negative result

Burial 70/1979: Museum Inv. No. A 3001
Sex: female
Age: 45–50 yrs
Individual: well preserved skeleton
Stature: 157 cm
Skull: arched forehead with flat glabella, sharp orbital margins, wide zygomatic bones (*Figure 41a*), medium-sized mastoids (*Figure 41b*). Arched and slightly prominent cranial occiput, bow-shaped *protuberantia occipitalis externa* (*Figure 41c*). Maxilla and mandible exhibit strong abrasion in anterior teeth, abrasion in dental crowns goes down to the roots (*Figure 97*). Mandible – short, with distinct chin, straight gonia.
Dental caries: maxilla – fistula in the left P2 and M1, mandible – alveolar fusion on the right side
Anthropometric characteristics: hyperdolichocrany, orthocrany, acrocrany, eurymetopy, leptoprosopy, hyperlepteny, hypsiconchy, chamaerrhiny, leptostaphyliny, orthognathy, dolichostenomandibular
Postcranial finding: cervical vertebrae are preserved, the others are damaged. Humeri with medium-sized articular heads, large cavity *sulcus intertubercularis* between the trochanters, distinctive lateral margins. Rough topography concentrated in the upper third passes distally over to a smaller deltoid tuberosity, *fossa olecrani* is perforated. The right ulna with sharp margin *margo interosseus*, below the cavity *incisura radialis* runs in longitudinal direction a larger ridge *crista musculi supinatoris*. Between the crest and the tuberosity below the *olecranon* there are two parallel grooves caused by pressure (*Figure 107*). Hand bones *phalanges proximales* and *phalanges mediae* exhibit longitudinal bone lips (*Figure 114*). Iliac wings with deep *sulcus praeauricularis,* the female had delivered. Femurs with distinct *linea aspera*, weakly developed pilaster, hyperplatymeric. Tibiae – robust, sharp ridges, platycnemic.
Finding: traces of ochre on the skull; maxilla and mandible – in anterior teeth strong abrasion – work tool?
X-ray: claviculae, tibiae – negative result

Burial 72/1979: Museum Inv. No. A 3003
Sex: female
Age: 30–40 yrs
Individual: well preserved skeleton
Stature: 158.5 cm
Skull: flat forehead, flat glabella, *cribra orbitalia* in the left orbit, wide zygomatic bones with *processus marginalis* (*Figure 42a*). Traces of ochre on the left side of the skull, medium-sized mastoids (*Figure 42b*). Cranial occiput is arched, slightly prominent, with bow-shaped *protuberantia occipitalis externa* (*Figure 42c*). Mandible – short, with indicated chin, straight gonia, M3 on both sides are not erupted.
Dental caries: mandible – caries in the left M2
Anthropometric characteristics: mesocrany, eurymetopy
Postcranial finding: cervical vertebrae, *clavicula sin.*, *caput humeri sin.*, and phalanges are dyed with ochre. The right humerus has a distinct protuberance *tuberculum minus*, indistinct *tuberculum majus* passes longitudinally over into a bony crest, *fossa olecrani* is perforated. Deltoid tuberosity is situated in the middle part of humeral shaft. Ulnae with deep cavity *incisura radialis,* and below there is a sharp ridge *crista musculi supinatoris*. Olecranons are extended at *facies posterior* with corrugated margin.

Hand bones *phalanges proximales* with smooth surface without bone lips. On the pelvis there are deep preauricular grooves, the female had delivered (*Figure 120*). Femurs – long, with lateral ridge *linea pectinea*, medium-developed *linea aspera*, medium-developed pilaster, platymery. Tibiae – flat, with sharp ridges, distinct *tuberositas tibiae*, eurycnemic.
Diseases: *cribra orbitalia* in the left orbit
Finding: skull and skeleton dyed with ochre
X-ray: claviculae, tibiae – negative result

Burial 74/1979: Museum Inv. No. A 3005
Sex: female
Age: 50+ yrs
Individual: incomplete skeleton
Stature: 150.2 cm
Skull: considerably corroded *calvaria*, without forehead and temporal bones, small mastoid. Arched cranial occiput, without distinct tuberosities. Mandible – senile, alveolar fusion.
Postcranial finding: vertebral fragments. Humeri are smooth, without any topography, the forearm bones are medium-sized, hand bones incomplete, phalanges without lipping. From the pelvis there are only fragments; femurs – medium-sized, rather small, without tuberosities, undeveloped pilaster, hyperplatymery; tibiae – flat, platycnemic.
X-ray: claviculae, tibiae – negative result

Burial 75/1979: Museum Inv. No. A 3006
Sex: female
Age: 25–35 yrs
Individual: well preserved skeleton
Stature: 156.7 cm
Skull: arched forehead, flat glabella, wide zygomatic bones (*Figure 43a*), medium-sized mastoids (*Figures 43b, 98a*), arched cranial occiput with distinct eminence and a prominent line (*Figure 43c*), drop-shaped *protuberantia occipitalis externa* at the inion (*Figure 98b*). Within the lambdoid suture occurs *os incae*. Mandible – short, with rounded chin, straight gonia.
Anthropometric characteristics: brachycrany, hypsicrany, metriocrany, metriometopy, stenometopy, leptoprosopy, hyperlepteny, chamaeprosopy, hypsiconchy, leptorrhiny, mesognathy, dolichostenomandibular
Postcranial finding: vertebrae without osteophytes. Humeri with medium-sized articular heads, distinct deltoid tuberosities, perforated *fossa olecrani*. Ulnae with deep cavity *incisura radialis*, longitudinal sharp ridge *crista musculi supinatoris.* Hand bones have in five *phalanges proximales* longitudinal bone lips at initial stage of growth, the other phalanges exhibit smooth margins. Iliac wings are well preserved, without postpartum attributes and alterations, the female had not delivered. Femurs – long, slender, *linea aspera* is divided into two indistinct ridges, weakly developed pilaster, platymery. Tibiae – eurycnemic.
Diseases: tibiae with Harris lines (*Figure 161*)
Finding: cranial occiput exhibits a coracoid *protuberantia occipitalis externa* at the inion
X-ray: claviculae – negative result

Burial 80/1979: Museum Inv. No. A 3011
Sex: female
Age: 35–45 yrs
Individual: well preserved robust skeleton
Stature: 159.4 cm
Skull: damaged left orbit, recessive forehead, glabella of stage I, *processus marginalis* on the right side (*Figure 44a*), medium-sized mastoids, arched cranial occiput (*Figure 44b*) shifted towards the cranial base, indistinct topography (*Figure 44c*). Mandible – short, with rounded chin, everted gonia.
Dental caries: maxilla – caries in the left M1, mandible – caries in the left M3
Anthropometric characteristics: dolichocrany, chamaecrany, acrocrany, hypsiconchy, chamaerrhiny, orthognathy, dolichostenomandibular
Postcranial finding: damaged vertebrae. The left humerus is damaged, the right one has distinctive trochanters, rough topography in the upper humeral portion, perforated *fossa olecrani*. Ulnae with deep cavity *incisura radialis*, distinct bony ridge *crista musculi supinatoris*. Hand bones *phalanges proximales* and *phalanges mediae* with bone lips all along. Iliac wings with deep *sulcus praeauricularis*, the female had delivered. The left femur is damaged, without distal and proximal parts, the right one with indistinct *linea aspera*, undeveloped pilaster, platymery. Tibiae – eurycnemic.
X-ray: claviculae, tibiae – negative result

Burial 81a/1979: Museum Inv. No. A 3012a
Sex: female
Age: 20–30 yrs
Individual: well preserved skeleton including a newborn (*Figure 65*)
Stature: 161.4 cm
Skull: arched forehead, flat glabella, weakly developed *arcus superciliares*, large mastoids, medium-developed supramastoid crest (*Figure 45a, b*). Cranial occiput is roundly arched, with distinct topography on *planum nuchale* (*Figure 45c*). Mandible – strong for a female, prominent, with rounded chin, straight gonia.
Anthropometric characteristics: dolichocrany, chamaecrany, metriocrany, eurymetopy, chamaeprosopy, euryeny, hypsiconchy, chamaerrhiny, prognathy, dolichostenomandibular
Postcranial finding: damaged vertebrae. Humeri with cavity *sulcus intertubercularis* between the trochanters, *tuberculum minus* is large and passes over to the distinct ridge *crista tuberculi minoris*, *fossa olecrani* is perforated. Ulnae – robust, with cavity *incisura radialis,* sharp longitudinal ridges. Olecranons – robust, corrugated margins at *facies medialis*. Hand bones with longitudinal

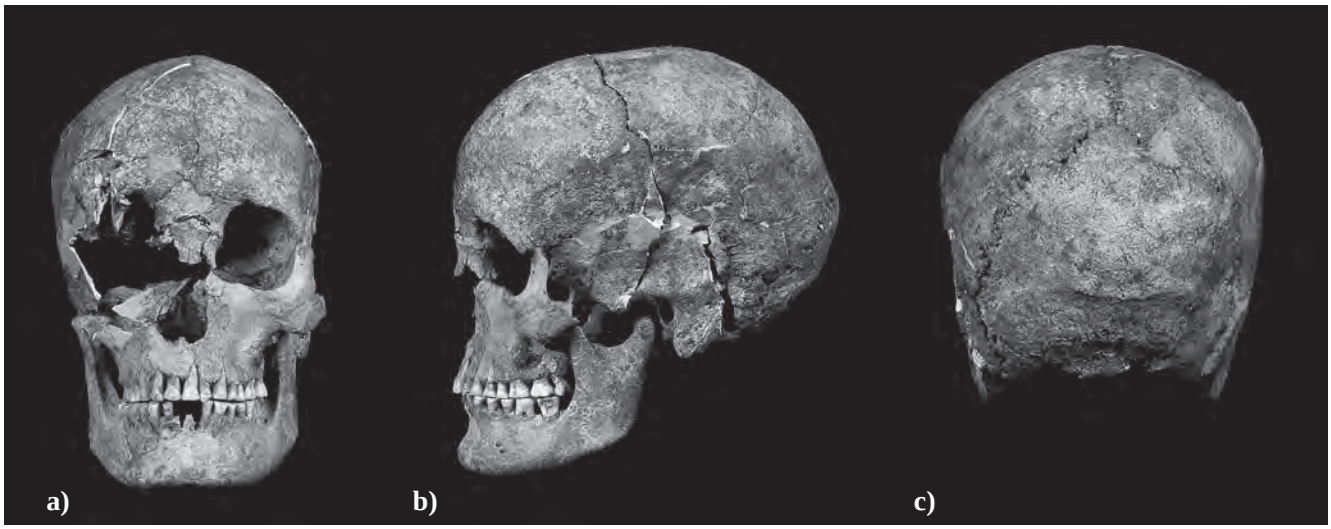


FIGURE 42a, b, c. Vedrovice No. 72/79. Frontal, lateral and occipital view of the skull of a 30–40-year-old female.

FIGURE 43a, b, c. Vedrovice No. 75/79. Frontal, lateral and occipital view of the skull of a 25–30-year-old female.

FIGURE 44a, b, c. Vedrovice No. 80/79. Frontal, lateral and occipital view of the skull of a 35–45-year-old female.

FIGURE 45a, b, c. Vedrovice No. 81a/79. Frontal, lateral and occipital view of the skull of a 20–30-year-old female.

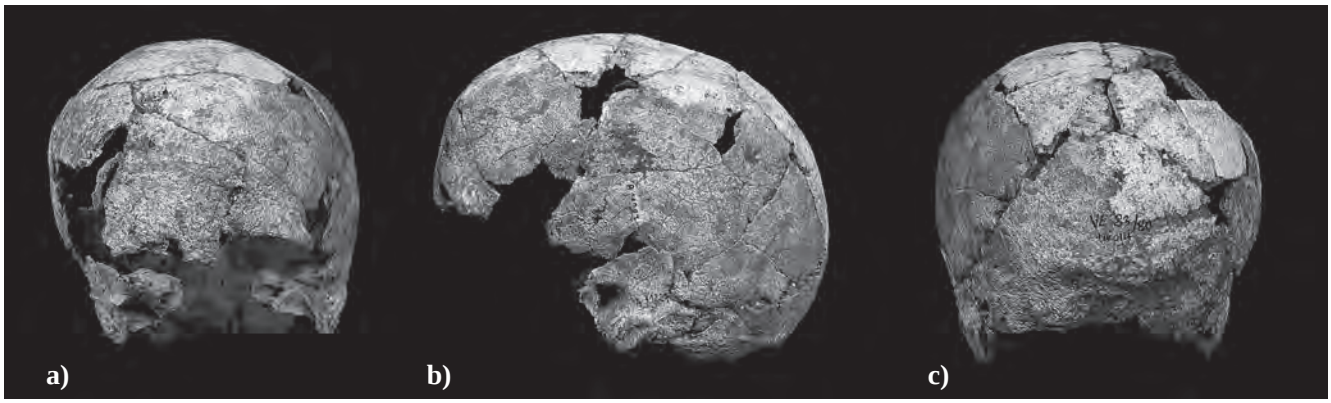


FIGURE 46a, b, c. Vedrovice No. 83/80. Frontal, lateral and occipital view of the skull of a female aged over 60.

FIGURE 47a, b, c. Vedrovice No. 86/80. Frontal, lateral and occipital view of the skull of a 25–30-year-old female.

bone lips in *phalanges proximales.* On the pelvis there is *sulcus praeauricularis,* the female had delivered. Femurs – robust, developed lateral eminences at *trochanter tertius,* distinct *linea aspera,* weakly developed pilaster, platymery. Tibiae – platycnemic.
X-ray: claviculae, tibiae – negative result

Burial 83/1980: Museum Inv. No. A 11227–11246
Sex: female
Age: 60+ yrs
Individual: incomplete gracile skeleton
Skull: very gracile *calvaria*, *cribra orbitalia* in the left orbit, arched forehead, small mastoids (*Figure 46a, b*). Cranial occiput is arched, with distinct *protuberantia occipitalis externa* (*Figure 46c*). Mandible – senile, without teeth.
Diseases: *cribra orbitalia* in the left orbit
Postcranial finding: damaged vertebrae, humeri – smooth in the middle part, without tuberosities. Ulnae with cavity *sulcus radialis,* indistinct topography. Hand bones – incomplete, two phalanges with lateral bone lips. Femurs – damaged, weakly developed pilaster, platymery. Tibiae – without any distinct ridges, flat, platymeric.

Burial 86/1980: Museum Inv. No. A 11268–11304
Sex: female
Age: 25–30 yrs
Individual: well preserved skeleton
Stature: 143.8 cm
Skull: arched forehead with flat glabella, sharp orbital margins, *cribra orbitalia* in the left orbit (*Figure 47a*), wide zygomatic bones with *processus marginalis,* medium-sized mastoids (*Figure 47b*). Cranial occiput is shifted towards the cranial base, *protuberantia occipitalis externa* is distinct, bow-shaped (*Figure 47c*). Mandible – short, wide, with angular chin, everted gonia, the left M3 is not erupted.
Anthropometric characteristics: brachycrany, hypsicrany, metriocrany, metriometopy, leptoprosopy, hyperlepteny, hyperchamaeprosopy, hypsiconchy, mesorrhiny, ortognathy, mesostenomandibular
Diseases: *cribra orbitalia* in the left orbit
Postcranial finding: damaged vertebrae, gracile humeri, weakly developed tuberosities in the middle part of the shaft. Ulnae with deep cavity *incisura radialis* and distinct lateral ridge *crista musculi supinatoris*. Hand bones are incomplete, without findings. Iliac wings with deep postpartum grooves, the female had delivered (*Figure 121*). Femurs – medium-sized, short, with longitudinal indistinct *linea aspera*, undeveloped pilaster, platymery. Tibiae – medium-sized, indistinct anterior ridges, platycnemy.
X-ray: claviculae, tibiae – negative result

Burial 87/1980: Museum Inv. No. A 11305–11311
Sex: female
Age: adult
Individual: incomplete skeleton without skull
Postcranial finding: vertebral and costal fragments. Proximal parts of humerus, ulna and radius. Iliac wings with open *incisura ischiadica major*; the overall robusticity of the skeleton would rather indicate a male character.
X-ray: claviculae, tibiae – negative result

Burial 89/1980: Museum Inv. No. A 11344–11353
Sex: female
Age: adult
Individual: damaged skeleton
Postcranial finding: fragment of postcranial skeleton, long bones are medium-sized, rather gracile. Fragments of humerus, ulna, radius and femur.

Burial 90/1980: Museum Inv. No. A 11354–11363
Sex: female
Age: adult
Individual: damaged incomplete skeleton
Postcranial finding: skeletal fragments, gracile long bones, humerus and ulnae

Burial 91/1980: Museum Inv. No. A 11364–11403
Sex: female
Age: 18–20 yrs
Individual: incomplete skeleton
Stature: 165 cm
Skull: arched forehead with flat glabella, wide zygomatic bones, medium-sized mastoids (*Figure 48a*). Traces of ochre on the left side of the skull (*Figure 48b*). Cranial occiput is slightly prominent, arched, occipital surface is smooth, only with a bow-shaped *protuberantia occipitalis externa* (*Figure 48b*). Mandible – short, wide, with rounded chin, straight gonia.
Anthropometric characteristics: hyperdolichocrany, hypsicrany, acrocrany, eurymetopy, hyperchamaeprosopy, hypsiconchy, hyperchamaerrhiny, leptostaphyliny, orthognathy
Dental caries: maxilla – rotated P1 on the left side
Postcranial finding: vertebrae without findings. Humeri – long, with medium-sized articular heads, deep cavity *sulcus intertubercularis*, sharp and distinct *crista musculi supinatoris*. The main tuberosities are concentrated in the upper third (*Figure 104*), deltoid tuberosity is indistinct, perforated *fossa olecrani.* Ulnae with deep *incisura radialis* and a distinct *crista musculi supinatoris.* Below the *processus coronoideus* there are two parallel longitudinal grooves. Hand bones *phalanges proximales* with longitudinal bone lips. Cavities on iliac wings, probably preauricular grooves, the female had probably delivered. Femurs – robust, lateral lip *trochanter tertius* below the trochanters, indistinct *linea aspera*, weakly developed pilaster, hyperplatymery. Tibiae – eurycnemic.
Finding: skull is dyed with ochre
X-ray: claviculae, tibiae – negative result

Burial 93a/1980: Museum Inv. No. A 11404–11415
Sex: female

Age: 18–25 yrs
Individual: well preserved skeleton including a newborn (*Figure 66*)
Stature: 154.3 cm
Skull: *calvaria* with arched frontal bone, sharp orbital margins (*Figure 49a, b*). Cranial occiput – arched, slightly prominent, smooth surface, only the *protuberantia occipitalis externa* forms a lip (*Figure 49c*). Mandible – short, with rounded chin, slightly everted gonia.
Anthropometric characteristics: brachyeurymandibular
Postcranial finding: damaged robust vertebrae, depressions on bodies of lumbar vertebrae (*Figure 133*). Humeri – medium-sized articular heads, deep cavities between the trochanters, distinctive lateral ridges, tuberosities concentrated at the attachment sites of deltoid muscles, perforated *fossa olecrani*. Ulnae with cavity *incisura radialis* and sharp longitudinal ridge. Hand bones are incomplete, without bone lips. Deep preauricular grooves on the robust iliac wings, the female had delivered. Femurs – medium-sized, lateral bone lips below the trochanters, indistinct *linea aspera*, undeveloped pilaster, platymery. Tibiae – medium-sized, indistinct, eurycnemic.
Diseases: altered structure of vertebral bodies
X-ray: claviculae, tibiae – negative result

Burial 94/1980: Museum Inv. No. A 11439–11469
Sex: female
Age: 18–25 yrs
Individual: incomplete skeleton
Stature: 147.6 cm
Skull: the left half of a gracile skull, partial orbit, *os zygomaticum sin.,* medium size, small mastoid. Maxilla holds healthy, only slightly abraded teeth. Mandible without the right *ramus*, short, wide, with indicated chin and straight gonia.
Postcranial finding: damaged vertebrae. Humeri – medium-sized, gracile, smooth muscle attachment sites, only in the middle part of the shaft there is a distinct *tuberositas deltoidea*. Ulnae and ulnar ridges are medium-sized. Hand and foot bones are incomplete, without findings. Iliac wings at the stage of fusion, preauricular grooves are missing, the female had not delivered. Femurs – slender, bone lips below the trochanters, indistinct *linea aspera*, undeveloped pilaster, platymery. Tibiae – eurycnemic.
X-ray: claviculae, tibiae – negative result

Burial 97/1980: Museum Inv. No. A 11490–11524
Sex: female
Age: 30–40 yrs
Individual: well preserved skeleton
Stature: 162.1 cm
Skull: arched forehead, wide zygomatic bones with *processus marginalis,* medium-sized mastoids (*Figure 50a*, *b*), cranial occiput is arched, slightly prominent. Occipital surface is smooth, with distinct *protuberantia occipitalis externa* in form of a bow-shaped lip (*Figure 50c*). Mandible – short, with rounded chin, straight gonia, teeth without caries, strongly abraded.
Anthropometric characteristics: dolichocrany, orthocrany, acrocrany, hypsicrany, metriometopy, leptoprosopy, hyperlepteny, chamaeprosopy, hypsiconchy, leptorrhiny, orthognathy, dolichostenomandibular
Postcranial finding: damaged vertebrae without findings. The right humerus with articular head, the left one without, smooth attachment sites of deltoid muscles, perforated *fossa olecrani.* Ulnae with deep *incisura radialis*, sharp ridge *crista musculi supinatoris,* two parallel grooves below the *olecranon*. Hand bones are incomplete, with longitudinal bone lips on *phalanges proximales*. Iliac wings without findings. Femurs – long, slender, bony ridge *linea pectinea* below the trochanters, indistinct *linea aspera*, undeveloped pilaster, hyperplatymery. Tibiae – eurycnemic.
X-ray: claviculae, tibiae – negative result

Burial 100/1981: Museum Inv. No. A 11565–11600
Sex: female
Age: 20–30 yrs
Individual: incomplete skeleton
Skull: arched forehead with flat glabella, small mastoids (*Figure 51a, b*), arched cranial occiput, smooth occipital surface, *protuberantia occipitalis externa* forms a bow-shaped lip (*Figure 51c*). Mandible – short, wide, with distinctive chin, everted gonia, strongly abraded teeth.
Dental caries: maxilla – caries in the left M2
Anthropometric characteristics: hypsicrany, leptoprosopy, hyperlepteny, chamaeprosopy, hypsiconchy, mesorrhiny, orthognathy
Postcranial finding: porosity in vertebral bodies, humeri with distinct *tuberculum majus* and deep cavity *sulcus intertubercularis,* longitudinally running *crista tuberculi majoris* and *minoris* exhibit a rough topography, *fossa olecrani* is perforated. Ulnae with cavity *incisura radialis* and sharp ridge *crista musculi supinatoris*. Hand bones *phalanges proximales* with indistinct bone lips. Iliac wings with deep preauricular grooves, the female had delivered. Femurs – long, with medium-developed *linea aspera*, undeveloped pilaster, hyperplatymery. Tibiae – mesocnemic.
X-ray: claviculae, tibiae – negative result

Burial 101/1981: Museum Inv. No. A 11601–11634
Sex: female
Age: 45–55 yrs
Individual: well preserved skeleton
Stature: 149.7 cm
Skull: damaged right side with cranial base and temporal bone. Flat forehead, flat glabella, *cribra orbitalia* in the left orbit, medium-sized left mastoid (*Figure 52a, b*). Arched cranial occiput, smooth occipital surface, only the *protuberantia occipitalis externa* is indicated (*Figure 52c*). Mandible – short, wide, with distinct chin, straight gonia, strongly abraded teeth.
Anthropometric characteristics: dolichocrany, eurymetopy, hypsiconchy, chamaerrhiny

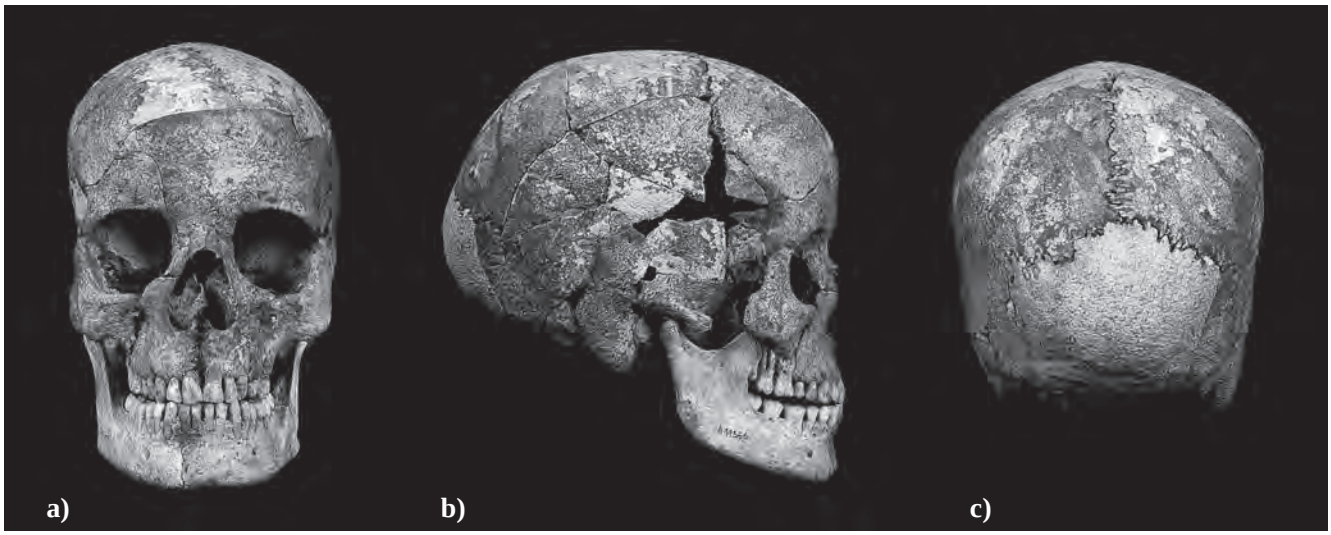


FIGURE 48a, b, c. Vedrovice No. 91/80. Frontal, lateral and occipital view of the skull of an 18–20-year-old female.

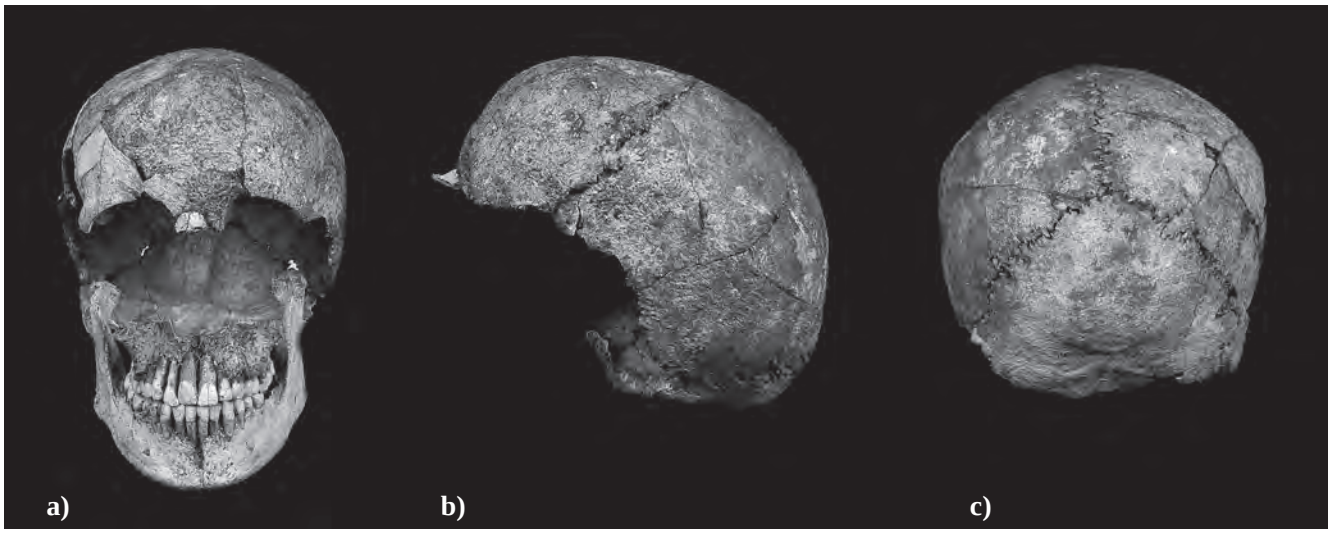


FIGURE 49a, b, c. Vedrovice No. 93a/80. Frontal, lateral and occipital view of the skull of an 18–25-year-old female.

FIGURE 50a, b, c. Vedrovice No. 97/80. Frontal, lateral and occipital view of the skull of a 30–40-year-old female.

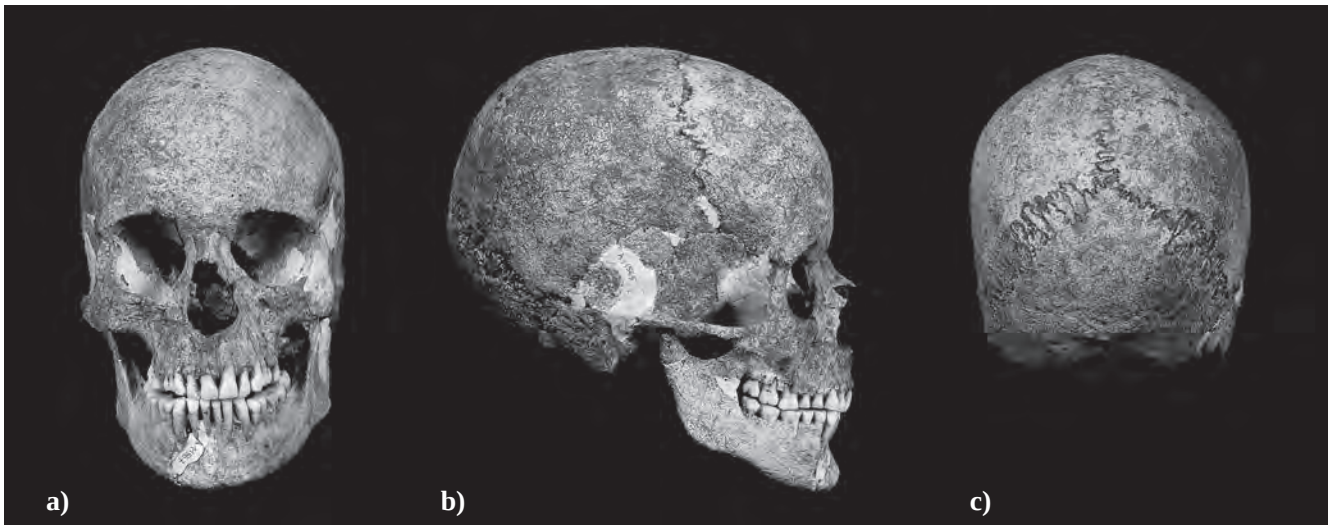


FIGURE 51a, b, c. Vedrovice No. 100/81. Frontal, lateral and occipital view of the skull of a 20–30-year-old female.

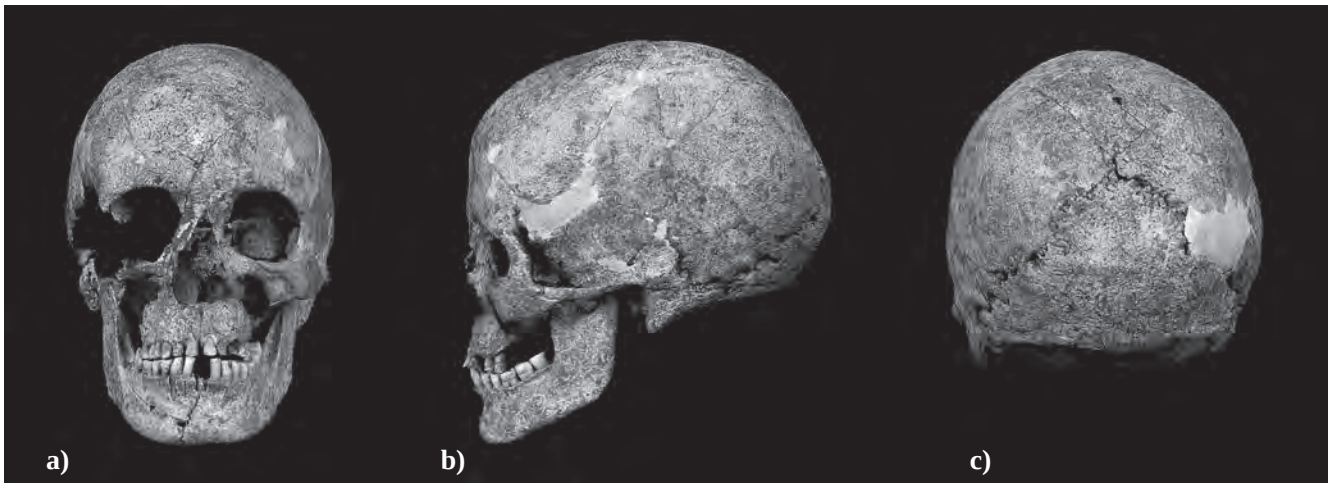


FIGURE 52a, b, c. Vedrovice No. 101/81. Frontal, lateral and occipital view of the skull of a 45–55-year-old female.

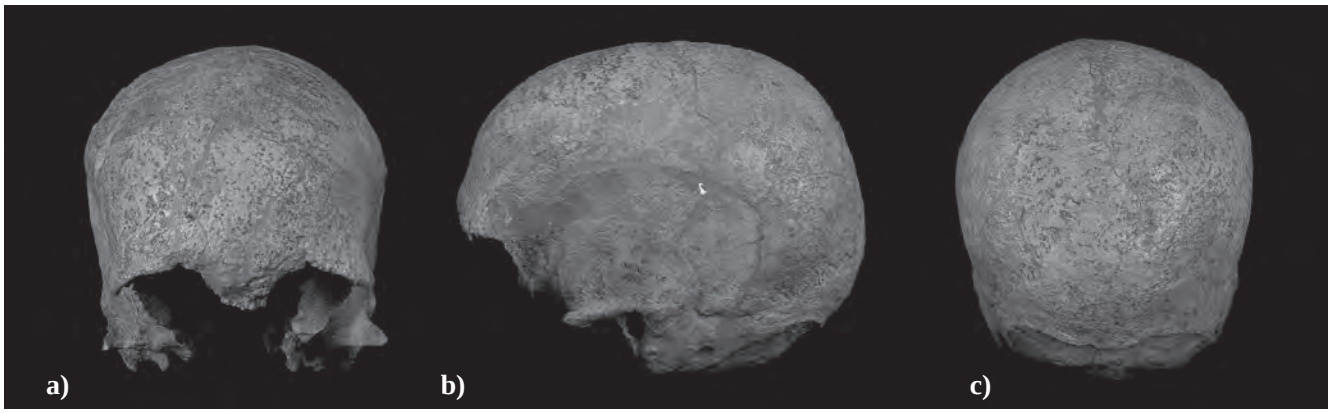


FIGURE 53a, b, c. Vedrovice No. 6/88. Lateral and occipital view of the skull of a female aged over 50.

Postcranial finding: damaged vertebrae. Humeri – deflected at the deltoid tuberosity, deep cavity *sulcus intertubercularis* with sharp *crista tuberculi minoris,* perforated *fossa olecrani*. Ulnae with cavity *sulcus radialis*, distinct *crista musculi supinatoris*. Hand bones *phalanges proximales* without lipping. Pelvis – damaged, without any attributes. Femurs – medium-sized, with longitudinal distinct *linea aspera*, weakly developed pilaster, hyperplatymery. Tibiae with medium-developed ridges, mesocnemic.
Finding: deflected humeri? – altered shape
X-ray: claviculae, tibiae – negative result

Burial 102/1981: Museum Inv. No. A 11635–11672
Sex: female
Age: 40–45 yrs
Individual: well preserved skeleton
Stature: 158.6 cm
Skull: the right half of a gracile skull with partial forehead, medium-sized mastoid, arched and smooth cranial occiput. The right half of the mandible with chin, abraded teeth.
Postcranial finding: damaged vertebrae, humeri without articular heads, with deep intertubercular cavities, indistinct topography of deltoid tuberosities, perforated *fossa olecrani*. Ulnae with deep cavity *sulcus radialis*, distinct and sharp ridge *crista musculi supinatoris*. Hand bones *phalanges proximales* and *phalanges mediae* with longitudinal bone lips. Iliac wings are robust, with deep *sulcus praeauricularis,* the female had delivered. Femurs – robust, with indistinct *linea aspera*, undeveloped pilaster, hyperplatymery. Tibiae with medium-developed ridges, mesocnemic.
X-ray: claviculae, tibiae – negative result

Burial 103/1981: Museum Inv. No. A 11673–11703
Sex: female
Age: 50–60 yrs
Individual: incompletely preserved skeleton
Skull: the left half of a gracile skull with partial orbit, arched forehead, cranial occiput is missing. From the mandible there is only the left *ramus* with closed alveoli.
Postcranial finding: missing vertebrae, humeri without articular heads, distinct *tuberositas deltoidea* at the attachment site of deltoid muscle, perforated *fossa olecrani*. Ulnae with deep cavity *sulcus radialis,* distinct lateral ridge *crista musculi supinatoris*. Hand bones are incomplete, five *phalanges proximales* with indicated longitudinal bone lips, *phalanges mediae* with bone lips in the middle part. On the fragment of the right iliac wing there is a partial *sulcus praeauricularis* coated with sinter, the female had delivered. Femurs – gracile, flat, distinct *linea aspera* all along the bone, weakly developed pilaster, platymery. Tibiae with distinct ridges, platycnemic.
X-ray: claviculae, tibiae – negative result

Burial 104/1981: Museum Inv. No. A 11704–11733
Sex: female
Age: 50+ yrs
Individual: incomplete skeleton
Skull: the right side of the skull with small mastoid and arched cranial occiput, smooth occipital surface, only the *protuberantia occipitalis externa* is distinctly prominent. Mandible – very gracile, with prominent chin, strongly abraded teeth.
Dental caries: mandible – caries in the right M1
Postcranial finding: damaged vertebrae, fusion between *os sacrum* and vertebra L1 (*Figure 131*). Humeri without articular heads, attachment sites of deltoid muscles with very distinct topography. Ulnae with cavity *sulcus radialis,* lateral *crista musculi supinatoris* is very sharp. Hand bones are incomplete, *phalanges proximales* and *phalanges mediae* with bone lips in the middle part (*Figure 115*). Distinct groove *sulcus praeauricularis* on the left iliac wing, the female had delivered. Femurs – damaged, indistinct longitudinal *linea aspera*, platymery. Tibiae are not extant.

Burial 105/1981: Museum Inv. No. A 11734–11766
Sex: female
Age: 16–18 yrs
Individual: incomplete skeleton
Skull: smooth cranial occiput without tuberosities, the right temporal bone and small mastoid. Mandible – short, medium-sized, with rounded chin, straight gonia, healthy teeth without caries, erupted M3.
Postcranial finding: damaged vertebrae, gracile humeri without tuberosities and proximal and distal articular heads. The right ulna without tuberosities, the left one damaged; hand bones are incomplete, phalanges without findings. Iliac wings are very gracile, incomplete. Femurs – slender, without articular heads, indistinct *linea aspera*, weakly developed pilaster, platymery. Tibiae – damaged, eurycnemic.
X-ray: claviculae, tibiae – negative result

Burial 106/1982: Museum Inv. No. A 11767–11789
Sex: female
Age: 16–18 yrs
Individual: incomplete skeleton
Skull: cranial fragments, partial *os parietale dx.* et *sin., os zygomaticum sin., os temporale dx.*
Postcranial finding: damaged vertebrae. Humeri – slender, with smooth surface, articular heads are not accrued, perforated *fossa olecrani*. Ulnae – medium-sized, rather gracile, without distinct tuberosities. Hand bones are incomplete, without any detected alterations. The iliac wing without *sulcus praeauricularis,* the female had not delivered. Preserved left femur with smooth surface, without distal condyles. *Tibia dx*. is damaged.

Burial 107/1982: Museum Inv. No. A 11790–11820
Sex: female
Age: 18–20 yrs
Individual: incomplete skeleton

Skull: the left parietal and temporal bone with small mastoid, isolated left part of the frontal bone, and maxilla with M3, M1. Mandible – short, with distinct chin, the right *ramus* is missing, healthy teeth, medium abrasion, erupted M3.
Postcranial finding: damaged vertebrae. Humeri – gracile, without articular heads, smooth surface without tuberosities, perforated *fossa olecrani*. Ulnae with cavity *sulcus radialis, crista musculi supinatoris* in the middle portion of the shaft forms sharp ridges (*Figure 108*). Hand bones are incomplete, without findings. Iliac wing with preserved *sulcus praeauricularis,* the female had delivered. The left femur – damaged proximally and distally, indistinct *linea aspera*, weakly developed pilaster, platymery. *Tibia dx*. – mesocnemic.

Burial 1/1985: Museum Inv. No. A 18232
Sex: female
Age: 20–25 yrs
Individual: incomplete skeleton
Stature: 157.9 cm
Skull: arched forehead, flat glabella, indistinct *arcus superciliares*, small mastoids, arched cranial occiput, *protuberantia occipitalis externa* forms an indistinct lip. Maxilla is distinctly prognathic; mandible – short, with distinctive chin, straight gonia. Asymmetrical wear of anterior teeth in the mandible and maxilla, teeth without caries.
Anthropometric characteristics: leptostaphyliny, dolichostenomandibular
Postcranial finding: damaged vertebrae. Humeri – slender, small articular heads, *tuberculum majus* forms a protuberance, deep cavity *sulcus intertubercularis,* attachment sites of deltoid muscles are weakly developed. Hand bones – incomplete, *phalanges proximales* without bone lips. Femurs – slender, long, with distinct *tuberositas glutaea* and *linea aspera,* weakly developed pilaster, hyperplatymery. Tibiae – platycnemic.
X-ray: claviculae, tibiae – negative result

Burial 6/1988: Museum Inv. No. A 18008
Sex: female
Age: 50+ yrs
Individual: incomplete skeleton
Stature: 149.1 cm
Skull: *calvaria,* arched forehead, flat glabella, developed *arcus superciliares*, medium-sized mastoids (*Figure 53a, b*). Flat parietal portion passes over to an arched cranial occiput with distinct *protuberantia occipitalis externa* in form of a distinctive bone lip (*Figure 53c*). Mandible – robust, short, with rounded chin, everted gonia, considerably worn teeth.
Dental caries: maxilla – caries in the left C
Anthropometric characteristics: dolichocrany, dolichostenomandibular
Postcranial finding: damaged vertebrae, humeri – robust, with distinct attachment sites of *m. deltoideus,* perforated *fossa olecrani*. Ulnae – rather gracile, damaged; hand bones are not extant. Pelvis of typical female shape without postpartum attributes, the female had not delivered. Femurs – strong, with distinct *tuberositas glutaea*, medium-developed pilaster, platymery. Tibiae – mesocnemic.
Finding: striation on dental crowns – maxilla and mandible were used as a work tool (*Figure 95*)
X-ray: claviculae, tibiae – negative result

Burial 7/1988: Museum Inv. No. A 18009
Sex: female
Age: 35–45 yrs
Individual: incomplete skeleton
Skull: missing face and cranial base, narrow skull, arched forehead, flat glabella, weakly developed *arcus superciliares* (*Figure 54a*). Medium-sized zygomatic bones, small mastoids (*Figure 54b*). Flat parietal region passes over to a roundly arched cranial occiput, indicated eminence *torus occipitalis* on *planum nuchale* (*Figure 54c*). Mandible – short, with intravital tooth loss, alveolar fusion on the left side.
Anthropometric characteristics: hyperdolichocrany, eurymetopy
Dental caries: mandible – alveolar fusion on the left side (M1–M3).
Postcranial finding: vertebrae are not extant, humeri – slender, without articular heads. Ulnae are gracile, damaged. Hand bones – incomplete, with lateral bone lips in five *phalanges proximales*. On the pelvis there is a preserved *sulcus praeauricularis* coated with sinter, the female had delivered. Femurs – without tuberosities, indistinct *linea aspera*, weakly developed pilaster, platymery. Tibiae – mesocnemic.
X-ray: claviculae, tibiae – negative result

Burial 9/1988: Museum Inv. No. A 11011
Sex: female
Age: 18 yrs
Individual: incomplete skeleton
Stature: 157.5 cm
Skull: low forehead with flat glabella, small mastoids (*Figure 55a*). Maxilla – prognathic, teeth without caries, M3 not erupted; mandible – short, with distinct chin, straight gonia (*Figure 55b*). Arched cranial occiput, weakly developed indistinct topography in the occipital region (*Figure 55c*).
Anthropometric characteristics: mesocrany, orthocrany, metriocrany, stenometopy, mesoconchy, hipsyconchy, mesorrhiny, mesostaphyliny, orthognathy
Postcranial finding: damaged vertebrae. Humeri without proximal articular heads, smooth topography without tuberosities, the right humerus with perforated *fossa olecrani.* Ulnae – damaged, incomplete; hand bones are not extant. The pelvis without preauricular grooves, the female had not delivered. Femurs – medium-sized, indistinct *linea aspera*, medium-developed pilaster, eurymery. Tibiae – mesocnemic.

FIGURE 54a, b, c. Vedrovice No. 7/88. Frontal, lateral and occipital view of the skull of a 35–45-year-old female.

FIGURE 55a, b, c. Vedrovice No. 9/88. Frontal, lateral and occipital view of the skull of an 18-year-old female.

FIGURE 56a, b, c. Vedrovice No. 10/89. Frontal, lateral and occipital view of the skull of a 20–25-year-old female.

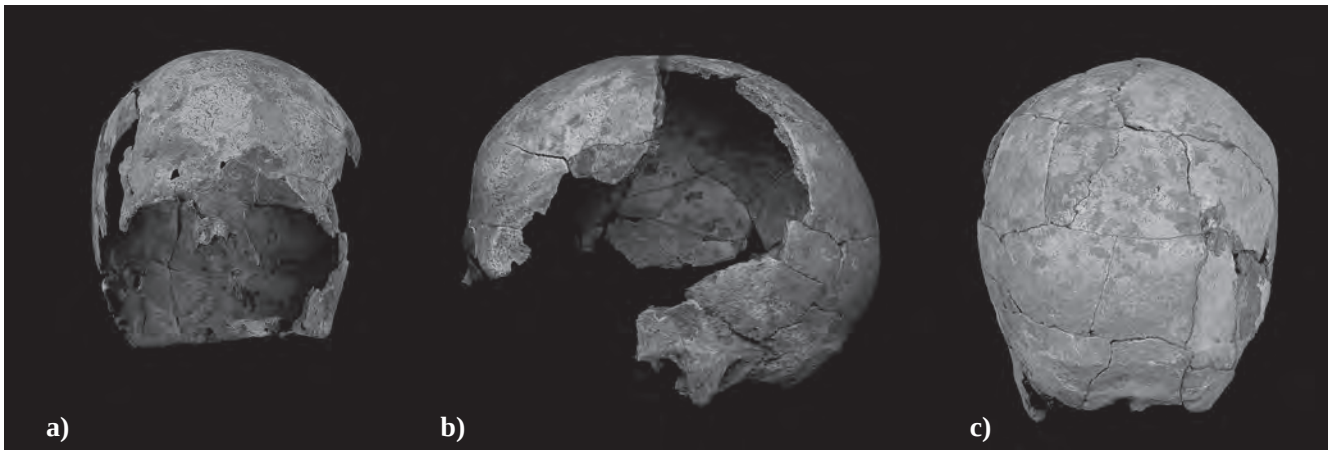


FIGURE 57a, b, c. Vedrovice No. 11/97. Lateral and occipital view of the skull of a female aged over 50.

X-ray: claviculae, tibiae – negative result

Burial 10/1989: Museum Inv. No. A 18257
Sex: female
Age: 20–25 yrs
Individual: well preserved skeleton
Stature: 147.2 cm
Skull: forehead is arched, slightly damaged, *cribra orbitalia* in the orbits (*Figure 56a*), wide zygomatic bones, weakly developed *tuberculum marginale* (*Figure 56b*). Temporal bone with distinct supramastoid crest and robust mastoid (*Figure 56c*). Flat cranial occiput, the occipital squamous region is arched, passing over to angular *planum nuchale* with distinct topography below the *linea nuchae inferior*. Mandible – short, with rounded chin, straight gonia.
Anthropometric characteristics: acrocrany, eurymetopy, leptoprosopy, meseny, chamaeprosopy, chamaerrhiny, leptostaphyliny, dolichostenomandibular
Postcranial finding: spondylosis on the vertebral column in the region of lumbar vertebrae, osteophytes (*Figures 100, 130*). Humeri – medium-sized, between great trochanters the cavity *sulcus radialis,* distinct *crista musculi supinatoris (Figure 109*), perforated *fossa olecrani.* Ulnae – short, with robust olecranons, deep *incisura radialis* and adjoining distinct *crista musculi supinatoris.* Hand bones exhibit longitudinal bone lips on *phalanges proximales*, *phalanges mediae* with bone lips in the middle parts. On the pelvis there is *sulcus praeauricularis (Figure 117*), the female had delivered. Coalescent porosity in *fossa iliaca* in the pelvis, on both sides of the acetabular region (*Figure 143a, b*). Femurs – medium-sized, distinct attachment sites of gluteal muscles, weakly developed pilaster, platymery. Tibiae – mesocnemic.
Diseases: *cribra orbitalia*, coalescent porosity in the acetabulum (*Figure 143a, b*).
Finding: the female had delivered
X-ray: claviculae, tibiae – negative result

Burial 11/1997: Museum Inv. No. A 22667
Sex: female
Age: 50+ yrs
Individual: skull with mandible
Skull: *calvaria,* partial cranial vault without cranial base (*Figure 57a*). Forehead – flat, arched, with flat glabella, distinct temporal line, the left mastoid is medium-sized (*Figure 57b*). Arched cranial occiput, indistinct topography on *planum nuchale* (*Figure 57c*). Mandible – gracile, narrow, the left *ramus* is missing; from the maxilla remained only a fragment, isolated teeth.
Postcranial finding: fragments of cervical vertebrae

Determination of Children (*Figure 58*)

Burial 1/1963: Museum Inv. No. A 1624
Age: 6–9 months
Individual: incomplete skeleton
Skull: cranial fragments, in the roof of the left orbit *cribra orbitalia*, the right orbit is not extant
Postcranial finding: from the skeleton remained only fragments except the pelvic bones *os ilium, os ischii*, and femoral and tibial diaphyses
Diseases: *cribra orbitalia* (*Figure 144*)

Burial 2/1963: Museum Inv. No. A 1625
Age: 5 yrs
Individual: incomplete skeleton
Stature: ca. 110 cm
Skull: partial cranial occiput (*os parietale, os occipitale, os temporale*). Mandible – on the left side 3 deciduous teeth (c, m1, m2), 1 permanent tooth bud before eruption (M1).
Postcranial finding: very fragmentary, from the pelvis there are *os ilium sin*., *os ischii sin*., diaphysis of the left femur, platymeric. Tibia – eurycnemic.
Dental caries: maxilla – in the left m2 caries
X-ray: tibia – negative result

Burial 3/1966: Museum Inv. No. A 1633
Age: 9 yrs
Individual: well preserved skeleton

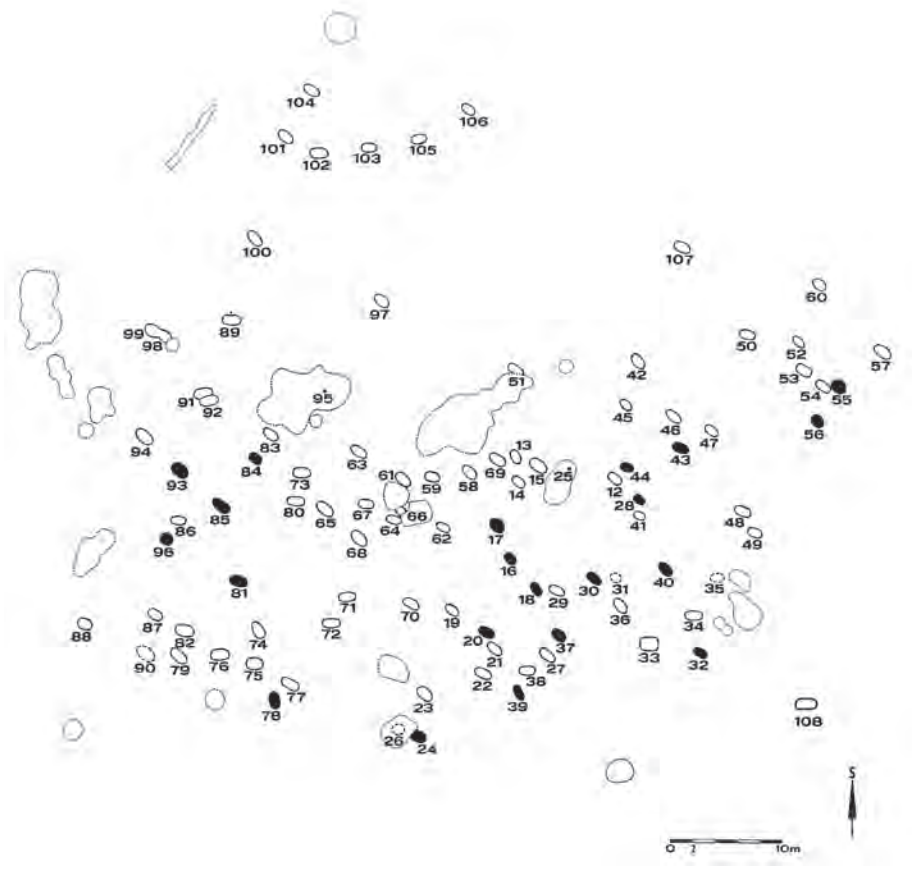


FIGURE 58. Vedrovice, "Široká u lesa" – plan of the cemetery with children burials marked in black.

Skull: complete, with mandible (*Figure 59a, b, c*), erupted M1
Anthropometric characteristics: hyperdolichocrany, chamaecrany, acrocrany, eurymetopy, dolichostenomandibular
Postcranial finding: damaged skeleton, fragments of cervical and lumbar vertebrae. The left iliac wing, the right femur – medium pilastric, eurymeric. Tibiae – eurycnemic.
X-ray: tibiae – negative result

Burial 4/1969: Museum Inv. No. A 1636
Age: 8 yrs
Individual: incomplete skeleton
Stature: 126 cm
Skull: *calvaria,* face and cranial base are missing. *Maxilla sin*. with I1, I2, c, m1, m2, M1. Mandible holds ten deciduous teeth, M1 on both sides, M2 buds.
Postcranial finding: damaged vertebrae, the right upper limb (humerus, ulna, radius). The left lower limb is missing. Femur – platymeric, eurymeric. Tibia – eurycnemic.
X-ray: tibia – negative result

Burial 5/1971: Museum Inv. No. A 1626
Age: 6–7 yrs
Individual: preserved skeleton
Stature: ca. 98 cm
Skull: arched forehead, rounded occiput (*Figure 60a, b, c*). Damaged face, the right side of maxilla is absent, *maxilla sin*. with I, c, m1, m2, M1. Mandible holds eight deciduous teeth, and on both sides erupted M1.
Anthropometric characteristics: brachycrany
Postcranial finding: incomplete skeleton. Stature was derived from the length of long bones. Femur with weakly developed pilaster, platymeric. Tibiae – eurycnemic.
Diseases: *cribra orbitalia* in the left orbital roof (*Figure 146*); tibiae with Harris lines
X-ray: claviculae – negative result

Burial 6/1972: Museum Inv. No. A 1627
Age: 3 yrs
Individual: incomplete skeleton
Skull: the left half of the skull and mandible. Mandible and maxilla with i2, c, m1, m2.
Postcranial finding: fragments, extant iliac wings, diaphyses of long bones, and tibiae
X-ray: tibiae – negative result

Burial 7/1972: Museum Inv. No. A 17533
Age: newborn
Individual: partial skeleton
Skull: fragments of cranial bones, *pars petrosa dx.*, *mandibula sin*.
Postcranial finding: from the upper limb there is only humerus, from the lower limb *femur dx.*
Diseases: cranial periostitis at *facies interna ossis parietalis* (*Figure 138*)

Burial 8/1974: Museum Inv. No. A 1632
Age: newborn
Individual: tiny remnants
Skull: two fragments
Postcranial finding: *humerus dx.*, *os ilium dx.* et *sin., femur dx.*

Burial 16/1975: Museum Inv. No. A 2280
Age: 3–4 yrs
Individual: incomplete skeleton
Skull: cranial fragments. Mandible holds eight deciduous teeth and part of the chin, the left *ramus* is missing.
Postcranial finding: missing vertebrae, damaged forearm bones, *femur sin*., damaged tibiae
Diseases: dental enamel hypoplasia
X-ray: tibiae – negative result

Burial 17/1975: Museum Inv. No. A 2281
Age: ±1 yr
Individual: tiny fragments
Skull: fragments, *pars petrosa sin.* et *dx.*, isolated teeth i1, i2, m1, m2 and dental crowns

Burial 18/1975: Museum Inv. No. A 2282
Age: 6–7 yrs
Individual: incomplete skeleton
Skull: arched occipital region (*os parietale, os occipitale, os temporale*), *maxilla dx.* with i2, m1, m2, M1. Mandible – damaged, isolated deciduous teeth.
Postcranial finding: missing vertebrae, long bones of upper and lower limbs are incomplete
Diseases: tibiae with Harris lines (*Figure 122*)

Burial 20/1975: Museum Inv. No. A 2284
Age: 3–4 yrs
Individual: incomplete skeleton
Skull: deformed, the left side of maxilla is missing. The right side of maxilla with i1, i2, c, m1, m2, M1 bud. Mandible – m2, m1, c, i2, –, –, c, m1, m2.
Postcranial finding: vertebral bodies and arches, long bones of upper and lower limbs
Diseases: tibiae with Harris lines
X-ray: claviculae – negative result

Burial 24/1975: Museum Inv. No. A 2288
Age: 5–7 yrs
Individual: skeleton without skull
Postcranial finding: missing vertebrae, damaged upper limbs, the left iliac wing, lower limbs – complete, without distal and proximal joints
Diseases: tibiae with Harris lines

Burial 28/1976: Museum Inv. No. A 2290
Age: 4–5 yrs
Individual: incomplete skeleton
Skull: cranial fragments and *os temporale sin*. From the mandible there is a fragment of the left *ramus*, and partial chin with m1, m2. Isolated i1, i2, and M1 crown. From the maxilla there are isolated teeth i, c, m1, m2, and M1 crown.
Postcranial finding: damaged skeleton, shafts of long bones from upper and lower limbs
X-ray: tibiae – negative result

Burial 30/1976: Museum Inv. No. A 2294
Age: 10–12 yrs
Individual: incomplete skeleton
Skull: cranial fragments, isolated teeth from the maxilla and mandible
Postcranial finding: fragments of long bones, *femur sin.*, tibial shaft

Burial 32/1976: Museum Inv. No. A 2295
Age: 12–14 yrs
Individual: incomplete skeleton
Skull: cranial fragments, *pars petrosa sin*., part of the left *ramus mandibulae*, isolated teeth
Postcranial finding: fragments of upper limbs, iliac wings, shafts of *femur dx*. et *sin.*

Burial 37/1976: Museum Inv. No. A 2298
Age: 11–12 yrs
Individual: well preserved skeleton
Skull: flat glabella, recessive forehead, arched occiput, the right orbit and *os zygomaticum* are missing (*Figure 61a, b, c*). Maxilla – intravitally lost I2, extant 13 teeth. Mandible – short, gracile, teeth at the stage of eruption, extant 14 teeth.
Postcranial finding: almost complete long bones, distal and proximal epiphyses are not accrued, which corresponds to subadult age
Diseases: tibiae with Harris lines
Finding: traces of ochre on the skull
X-ray: claviculae – negative result

Burial 39/1976: Museum Inv. No. A 2299
Age: 3–4 yrs
Individual: incomplete skeleton
Skull: partial cranial occiput, and cranial fragments, maxilla – m2, m1, c, i2, i1, –, –, c, m1. The mandible lacks both ascending *rami*, and holds preserved m2, m1–m2 and isolated dental crowns.
Postcranial finding: iliac wings, long bones of upper and lower limbs
Diseases: tibiae with Harris lines
X-ray: claviculae – negative result

Burial 40/1976: Museum Inv. No. A 2300
Age: 8–10 yrs
Individual: incomplete skeleton
Skull: *calvaria* with damaged cranial base (*Figure 62a, b*), maxillary fragments. Mandible – M1, m2, m1, c, I2, I1, –, I2, c, m1, m2, M1.
Postcranial finding: damaged skeleton, preserved long bones from lower limbs
X-ray: tibiae – negative result

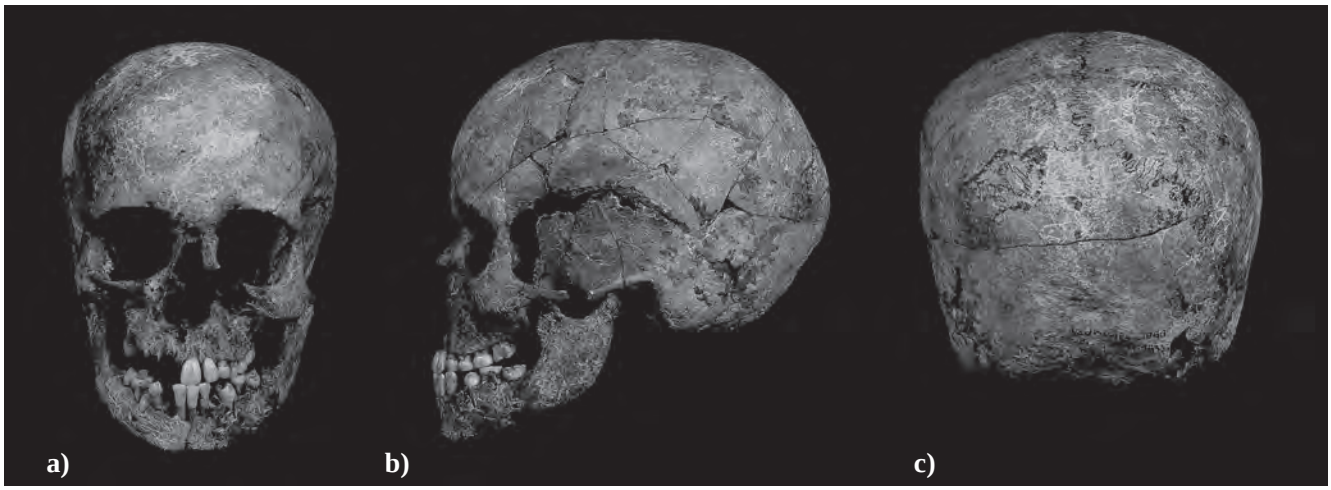


FIGURE 59a, b, c. Vedrovice No. 3/66. Frontal, lateral and occipital view of the skull of a 9-year-old child.

FIGURE 60a, b, c. Vedrovice No. 5/71. Frontal, lateral and occipital view of the skull of a 6–7-year-old child.

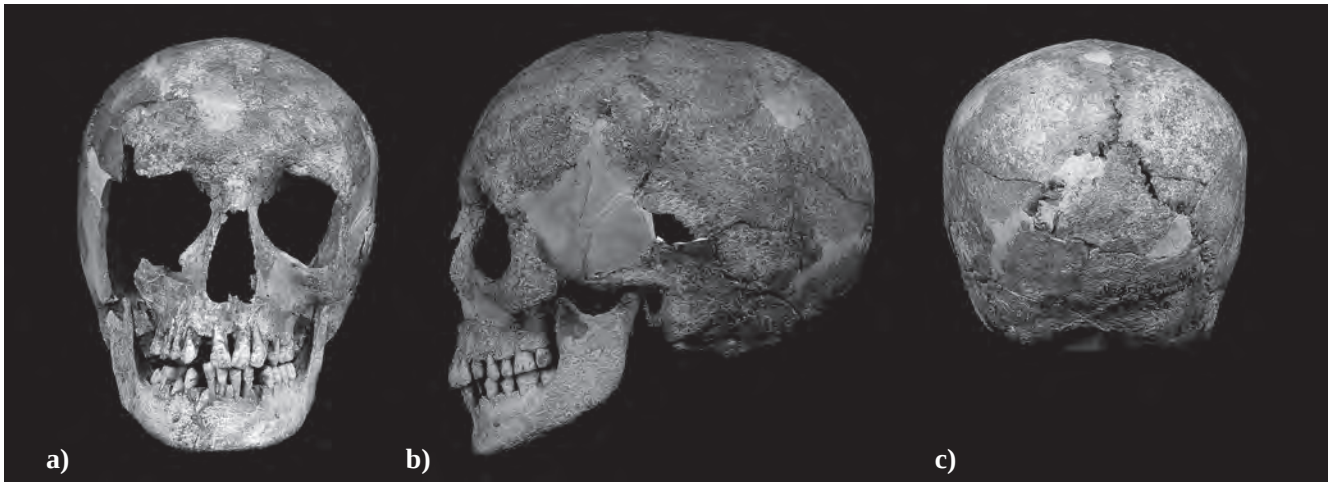


FIGURE 61a, b, c. Vedrovice No. 37/76. Frontal, lateral and occipital view of the skull of an 11–12-year-old child.

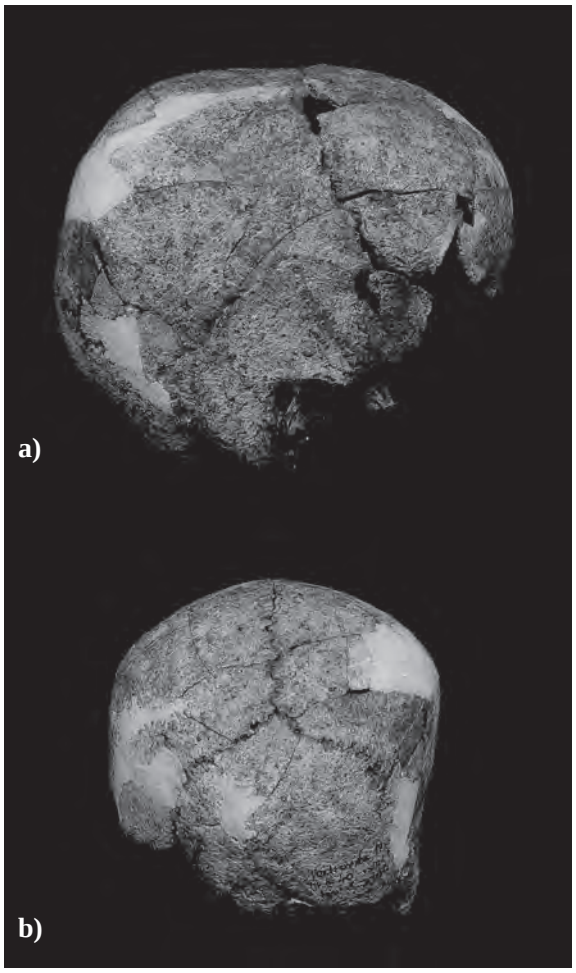


FIGURE 62a, b. Vedrovice No. 40/76. Lateral and occipital view of the skull of an 8–10-year-old child.

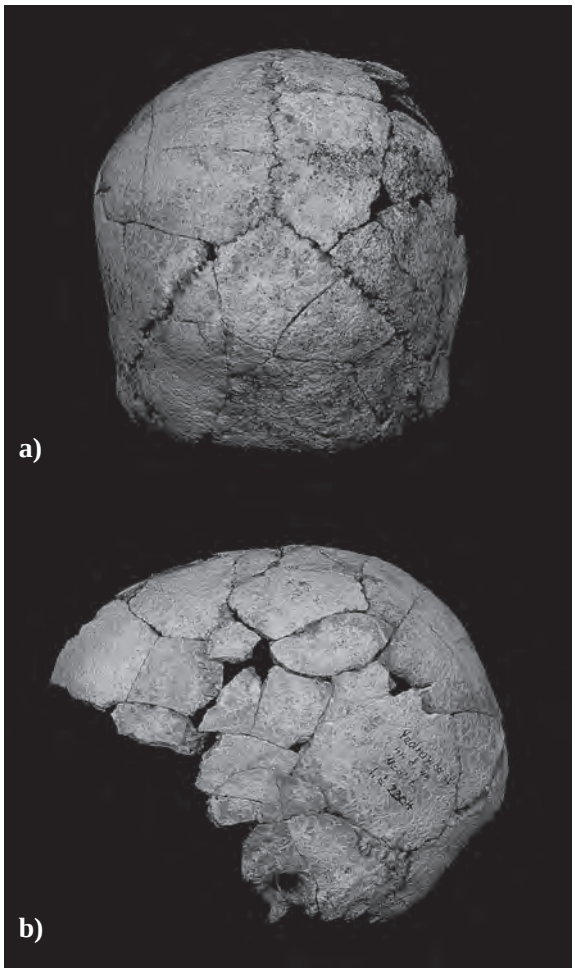


FIGURE 63a, b. Vedrovice No. 43/77. Occipital and lateral view of the skull of a 14-year-old child.

Burial 43/1977: Museum Inv. No. A 2304
Age: 14 yrs
Individual: incomplete skeleton
Skull: incomplete *calvaria* (*Figure 63a, b*), fragment of the left *ramus mandibulae*, isolated permanent teeth
Postcranial finding: damaged vertebrae, long bones of upper and lower limbs
Diseases: tibiae with Harris lines
X-ray: claviculae – negative result

Burial 44/1977: Museum Inv. No. A 2303
Age: 10–14 yrs
Individual: skeletal fragments
Skull: partial cranial vault with indicated *torus occipitalis*, two permanent teeth – mandibular I1 and maxillary M2
Postcranial finding: fragments of humerus, radius, *os ischium*, and articular heads of femurs

Burial 55/1978: Museum Inv. No. A 2989
Age: 10 yrs
Individual: skeletal fragments
Skull: cranial fragments, isolated maxillary tooth – I1
Postcranial finding: only fragments

Burial 56/1978: Museum Inv. No. A 2990
Age: 4–5 yrs
Individual: skeletal fragments
Postcranial finding: partial ulna, fragments of long bones

Burial 78/1979: Museum Inv. No. A 3009
Age: 7–8 yrs
Individual: incomplete skeleton
Skull: damaged *calvaria* (*Figure 64a, b*), mandible – well preserved, holding M1 on both sides, developed I1, m2, m1, c, i1 – c, m1, m2
Postcranial finding: fragmentary character – humeral and femoral shafts, the left iliac wing

Burial 81b/1979: Museum Inv. No. A 3012b
Age: newborn
Individual: incomplete skeleton (*Figure 65*)
Skull: frontal, parietal and temporal fragments, fragment of mandible
Postcranial finding: parts of humerus, femur and tibia

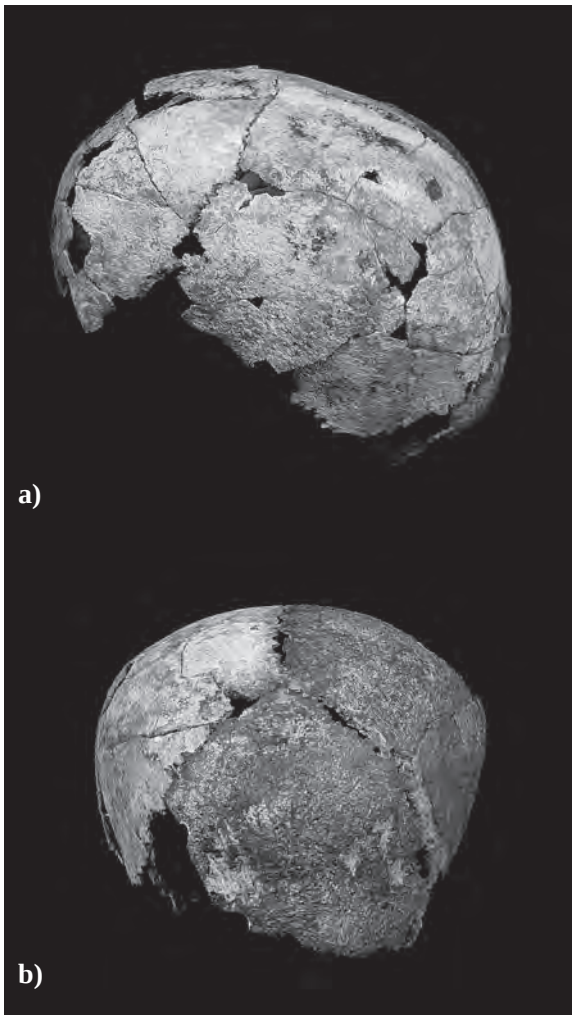


FIGURE 64a, b. Vedrovice No. 78/79. Lateral and occipital view of the skull of a 7–8-year-old child.

Burial 84/1980: Museum Inv. No. A 11224–11226
Age: 9 yrs
Individual: incomplete skeleton
Skull: cranial fragments, isolated deciduous and permanent teeth
Postcranial finding: long bones without epiphyses, *humerus dx*., the left iliac wing, both of femurs and tibiae
Diseases: tibiae with Harris lines

Burial 93b/1963: Museum Inv. No. A 11416–11438
Age: newborn
Individual: incomplete skeleton (*Figure 66*)
Skull: cranial and mandibular fragments
Postcranial finding: partial humerus, two ribs, bone fragments from lower limbs

Burial 96/1980: Museum Inv. No. A 11472–11489
Age: 3–5 yrs
Individual: incomplete skeleton
Skull: *calvaria* (*Figure 67a, b*), maxilla is missing, from the mandible remained a part of the chin, isolated crowns of deciduous teeth
Postcranial finding: damaged long bones of upper limbs. Preserved iliac wings and complete lower limbs, both of femurs, tibiae and fibulae.
X-ray: tibiae – negative result

Burial 3/1986: Museum Inv. No. A 18234
Age: 1.5–2 yrs
Individual: incomplete skeleton
Skull: *os frontale* without the right orbit, partial *os parietale*. From the mandible there is a chin fragment, isolated deciduous teeth.
Postcranial finding: damaged long bones
Diseases: *cribra orbitalia* in the left orbital roof

Burial 5/1988: Museum Inv. No. A 1807
Age: 3 yrs
Individual: partial skull and skeleton
Skull: *os frontale* with the left orbit, *os parietale*, *pars petrosa sin.*, fragments of maxilla and mandible
Postcranial finding: costal fragments

Burial 8/1988: Museum Inv. No. A 18010
Age: 13–15 yrs
Individual: incomplete skeleton
Skull: missing face and cranial base, arched cranial occiput, damaged mandible, isolated teeth and dental crowns
Postcranial finding: vertebral fragments, long bones of upper and lower limbs without distal and proximal epiphyses
Diseases: tibiae with Harris lines

Burial 12/1996: Museum Inv. No. A 22668
Age: 4 yrs
Individual: incomplete skeleton
Skull: partial cranial vault composed of *os parietale sin.,* and *os occipitale*, maxilla is not extant, mandible holds m2, m1, c, i2, i1/i1, i2, c, m1, m2
Postcranial finding: long bones of upper and lower limbs without epiphyses
X-ray: tibiae – negative result

Burial 13/1997: Museum Inv. No. A 22669
Age: 2 yrs
Individual: incomplete skeleton
Skull: partial cranial vault (*os frontale, parietale sin*.), and *os occipitale.* Maxilla is missing, from the mandible there are fragments of both *rami* and of the chin, isolated deciduous teeth.
Postcranial finding: incomplete long bones of upper and lower limbs

Determination of Unspecified Adults

Burial 12/1974: Museum Inv. No. A 1631
Age: adult
Individual: incomplete skeleton

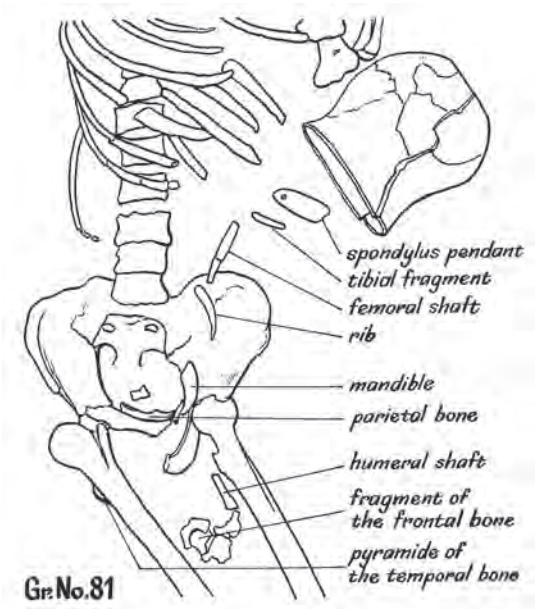


FIGURE 65. Vedrovice Nos. 81a–81b/79. Skeleton drawing of a female who had died during delivery. The newborn's skeleton is included (after Jelínek 1992, drawing by L. Píchová).

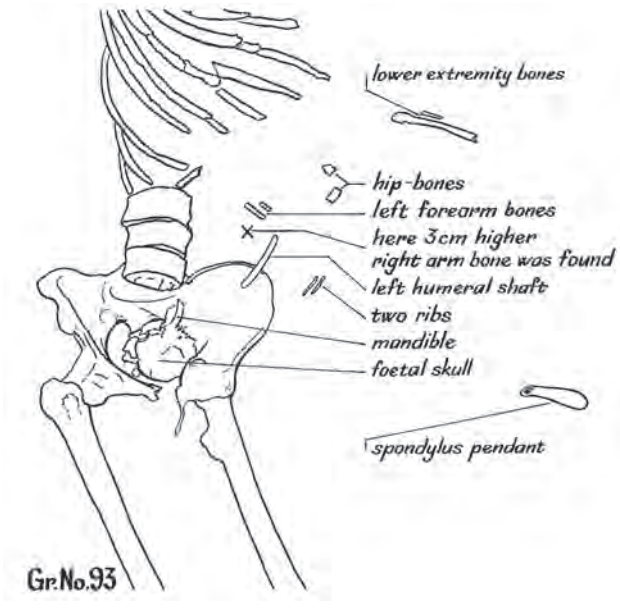


FIGURE 66. Vedrovice Nos. 93a–93b/80. Skeleton drawing of a female who had died during delivery. The newborn's skeleton is included (after Jelínek 1992, drawing by L. Píchová).

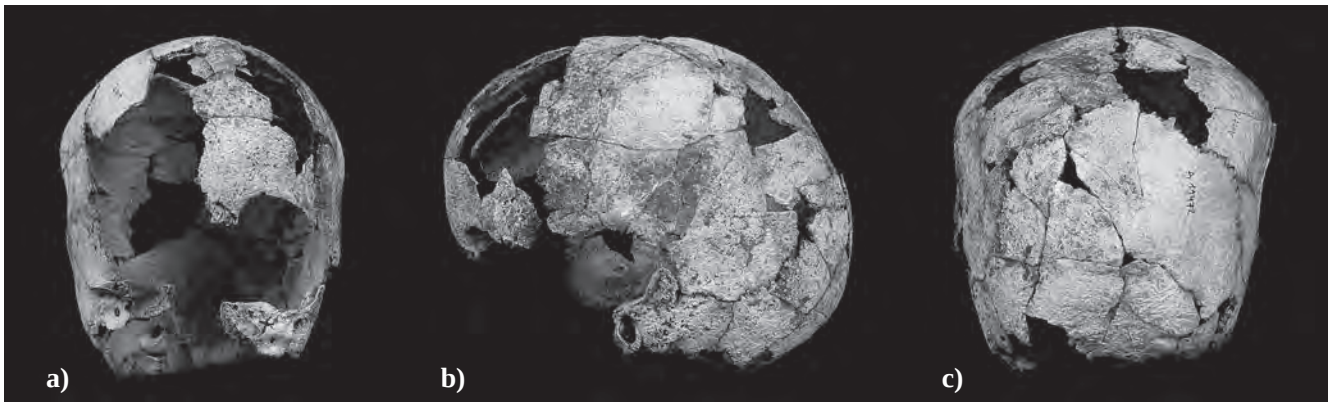


FIGURE 67a, b, c. Vedrovice No. 96/80. Frontal, lateral and occipital view of the skull of a 7–8-year-old child.

Skull: fragments of the frontal and zygomatic bones, chin fragment
Postcranial finding: fragments and parts of long bones, extant left femur with distinct *linea aspera,* articular heads and proximal joints are missing

Burial 35/1976: Museum Inv. No. A 2296
Age: adult
Individual: skeletal fragments
Postcranial finding: *os ischium* and pelvic fragments, from lower limbs there are partial femoral shafts, very robust

Burial 98/1981: Museum Inv. No. A 11525–11541
Age: adult
Individual: only a single bone
Skull: isolated teeth from the right side of the maxilla – I, P
Postcranial finding: the middle part of a femoral shaft

ANTHROPOLOGICAL ANALYSIS

Determination of sex and age

The studied set of 110 Neolithic individuals comprised 77 adults and 33 children (*Figure 68*). Among the adult individuals determined by sex there are 26 males, 48 females and 3 indeterminable individuals. According to age, the adult individuals are divided into categories as follows: 12 Juvenis (15–19 years), 20 Adultus I (20–29 years), 12 Adultus II (30–39 years), 13 Maturus I (40–49 years), 9 Maturus II (50+ years), 8 unspecified Adultus, and 3 indeterminable individuals. Children were represented in age categories as follows: 5 Infans I (until 5 months), 14 Infans II (5 months to 6 years), 14 Infans III (7–14 years). From the percentages of males (23.7%), females (43.6%), children (30.0%) and indeterminable individuals (2.7%) follows that the highest portion of the Neolithic

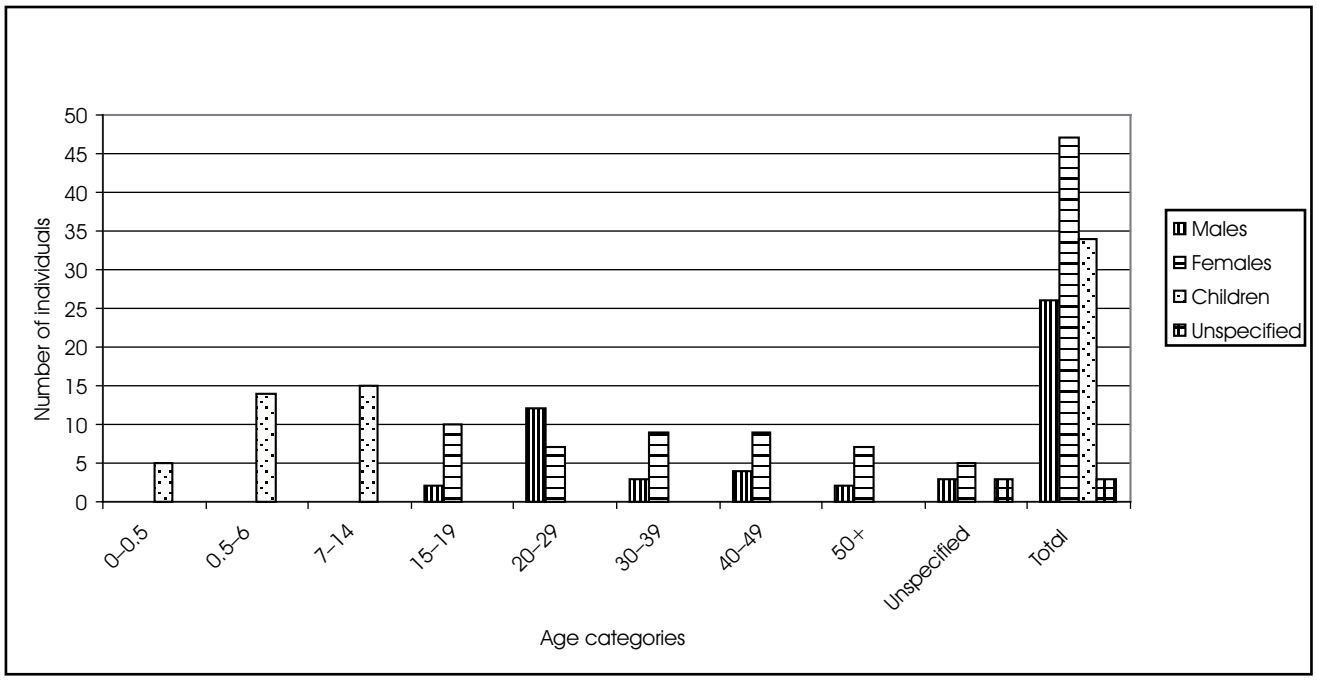


FIGURE 68. Representation of individuals from Vedrovice by age categories and sex.

population consisted of females. The representation of females was generally higher than that of males, most of the adult individuals died at the age of 20–29, and most of the children at the age of Infans II–III.

Morphological characteristics

Representation of males

The evaluated series of 26 male skeletal remains comprised 24 adult and 2 juvenile individuals. Representation of males by age: 2 juvenile individuals (15–19 years), 12 adult males aged 20–35 years, 7 older males aged 35–50 years, 2 individuals over 50 years, and 3 unspecified adult males. The number of males was lower than that of females but also in such a relatively small collection one can identify some characteristic features typical of males, and of determined age categories.

Skulls: in eight males the skulls are not preserved, most of the extant 18 skulls are robust, only one of them (79/79) can be considered as gracile. The skulls of five males (23/75, 66/78, 71/75, 99/81, 2/85) were in general medium-sized, but in no case gracile, with arched forehead, flat glabella or glabella of stage I, medium-sized *arcus superciliares*, and cranial occiput bearing a weakly-developed *torus occipitalis* of indistinct or rather protruding shape (54/78, 59/78, 69/78). Mandibles are medium-sized, without any tuberosities.

The skulls of robust (10/74, 19/75, 46/77, 73/79, 76/79) and very robust (11/74, 15/75, 77/79, 82/74) males exhibited much more developed characteristic features of sexual dimorphism: wide and arched frontal bone, robust *arcus superciliares*, distinct glabella of stage II–III. Zygomatic bones are wide, with *tuberculum marginale*, the supramastoid crests bear very robust *processi mastoidei*. Cranial occiput is angled, with a massive ridge at the attachment sites of neck muscles, *protuberantia occipitalis externa* at the inion with massive eminences, mainly in two males – 11/74 and 46/77 (*Figures 69a, b – 71a, b*). The mandibles are high, with distinct *protuberantia mentalis* and *tuberculum mentale*, with rough topography from the attachment of masticatory muscles at *tuberositas masseterica*, and with everted gonia (15/74, 46/77, 71/75, 73/79, 76/79, 99/81).

Vertebral column: any more distinct alterations in vertebrae could not be detected, the low degree of preservation of the skeletal material treated affected the assessment of permanent work load. Degenerative alterations of the vertebral column were found in 7 males – small arthritic outgrowths (10/74, 19/75), distinct osteophytes (11/74, 77/79), bone lips, vertebral bodies reduced in height (46/77, 79/79), and in one case a partial spina bifida was detected in the sacral region (77/79).

Skeleton of free upper limb: in almost all individuals the evident bone alterations were related to physical load. All alterations visible are displays of physical overload resulting in enthesopathy, bone alterations at the muscle attachment sites with compensatory bone neoformation, and forming of deep striations (2/85, *Figure 76*). The more robust skeletons exhibit distinct attachment sites of *m. deltoideus* (10/74, 11/74, 69/78, 73/79, 77/79); in several individuals, however, deltoid tuberosities were entirely absent (15/75, 23/75, 54/77) or the load on the arm shifted

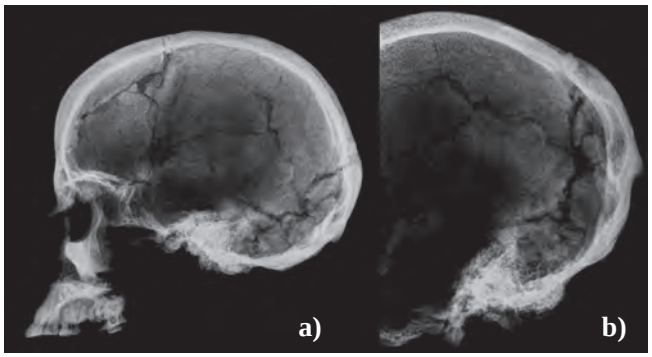


FIGURE 69a, b. X-ray image of the male skull No. 10/74, thickness of cranial bones, detailed view of the occipital region.

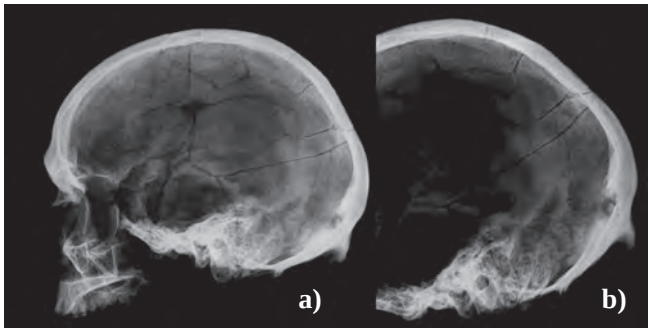


FIGURE 70a, b. X-ray image of the male skull No. 11/74, thickness of cranial bones, detailed view of the occipital region.

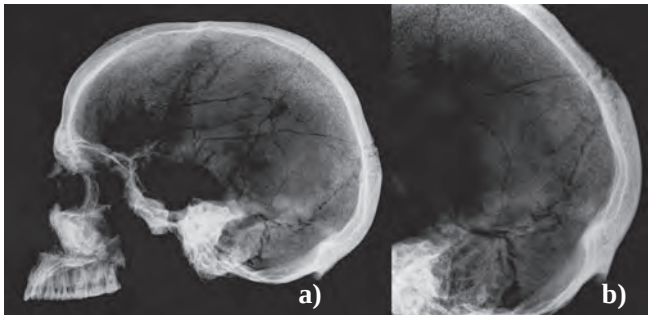


FIGURE 71a, b. X-ray image of the male skull No. 46/77, thickness of cranial bones, detailed view of the occipital region.

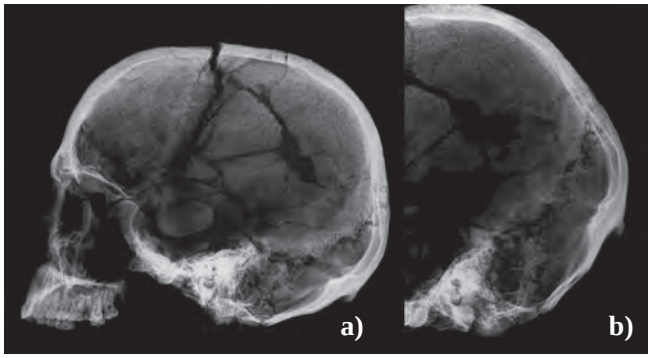


FIGURE 72a, b. X-ray image of the male skull No. 73/79, thickness of cranial bones, detailed view of the occipital region.

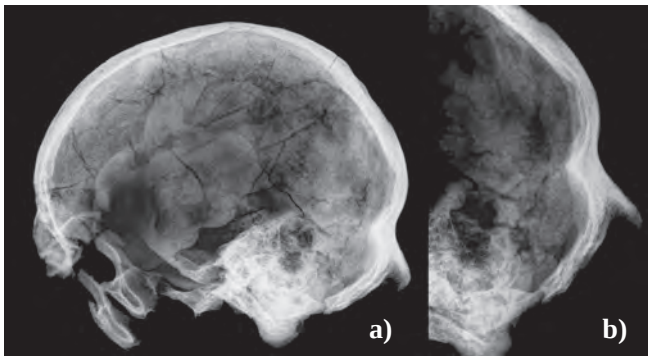


FIGURE 73a, b. X-ray image of the male skull No. 77/79, thickness of cranial bones, detailed view of the occipital region.

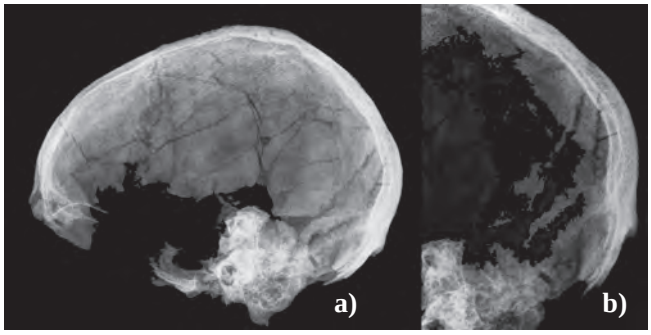


FIGURE 74a, b. X-ray image of the male skull No. 79/79, thickness of cranial bones, detailed view of the occipital region.

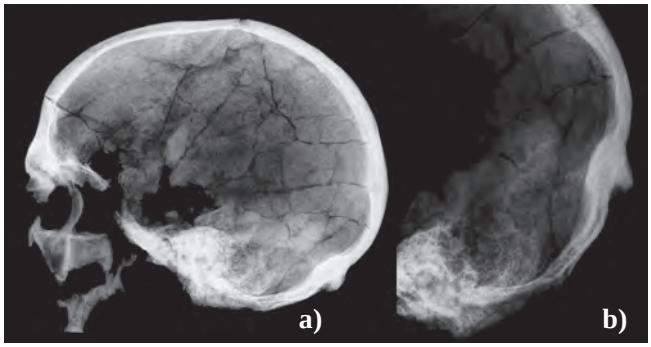


FIGURE 75a, b. X-ray image of the male skull No. 82/79, thickness of cranial bones, detailed view of the occipital region.

below the articular head onto *crista tuberculi minoris* (*Figures 77–79*: 46/77, 73/79, 79/79). A surprisingly high degree of robusticity and alterations in shape were detected in elbow joints (*Figures 80– 84*: 11/74, 15/75, 46/77, 54/78, 82/79) – rough topography, various depressions, sharp margins in the forearm (11/74, 15/75, 77/79) associated with rotating movements (pronation, supination) as well as with work involvement of well-built deltoid and biceps muscles. The bow-shaped deflection of bones was also related to physical load on the forearms, mainly on ulnae (*Figures 85–86*: 73/79, 77/79). As interesting findings in males can be considered the longitudinal bone lips that emerged on finger phalanges in the hands of 14 males.

FIGURE 76. Bone depressions from physical load in the proximal part of humeri in male No. 2/85.

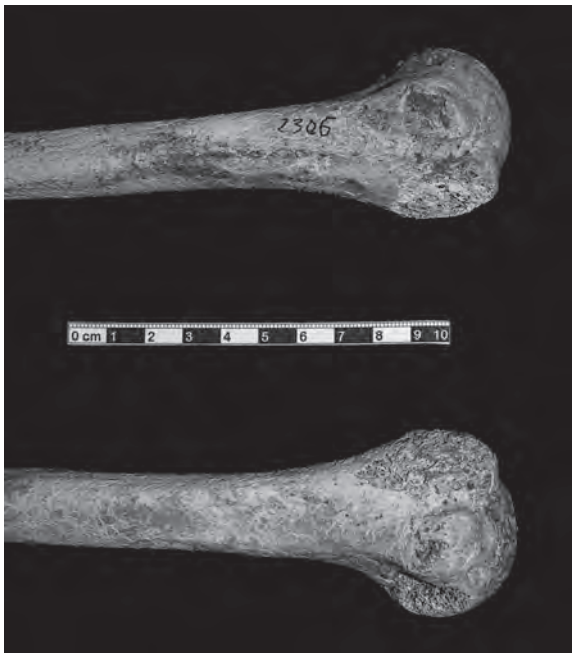


FIGURE 77. Deep cavities from physical load in the proximal part of humeri in male No. 46/77.

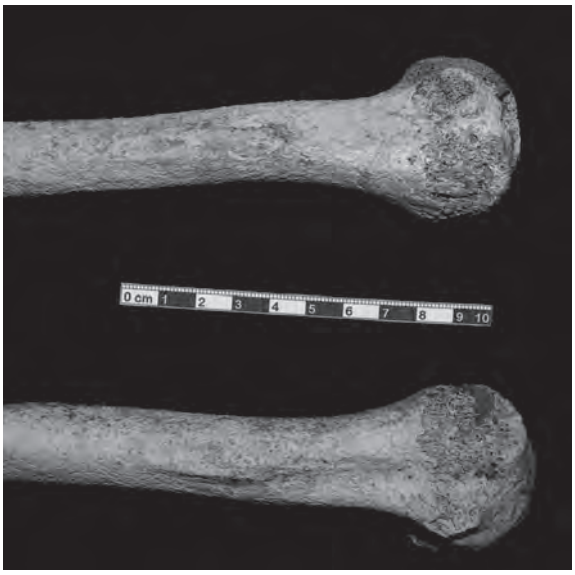


FIGURE 78. Distinct muscle attachment sites and long cavities in the proximal part of humeri in male No. 73/79.

FIGURE 79. Bony eminence in the proximal part of humerus in male No. 79/79.

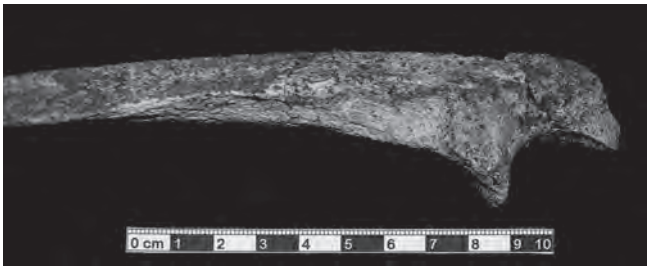


FIGURE 80. The right ulna of male No. 11/74 with sharp ridge from the attachments of muscles.

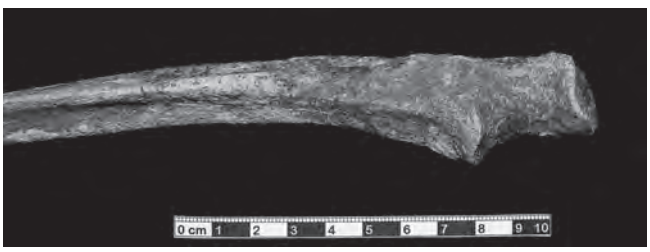


FIGURE 81. The right ulna of male No. 15/75 with twin sharp ridge from the attachments of muscles.

Permanent alterations in males could be detected either only in *phalanges proximales* or in both *phalanges proximales* and *phalanges mediae* or only in *phalanges mediae*. Alterations on finger phalanges occurred in males of various age and physical build, only in three males the finger phalanges remained smooth, without any bone lips. Finger phalanges were not preserved in eight males, and in two male individuals the number of finger phalanges was too low to be evaluated. It can be assumed that the

FIGURE 82. Sharp ridges and shape alterations in proximal parts of ulnae in male No. 46/77.

FIGURE 83. Deflection of ulnae in male No. 54/78.

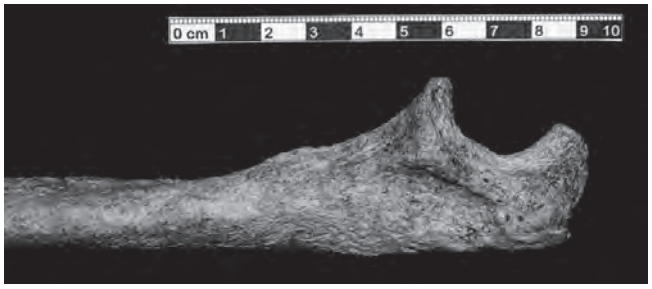


FIGURE 84. Hypertrophy, distinct muscle attachment sites and a cavity in the right ulna of male No. 82/79.

FIGURE 85. Deflection and distinct muscle attachment sites in ulnae of male No. 73/79.

FIGURE 86. Deflection and distinct muscle attachment sites in ulnae of male No. 77/79.

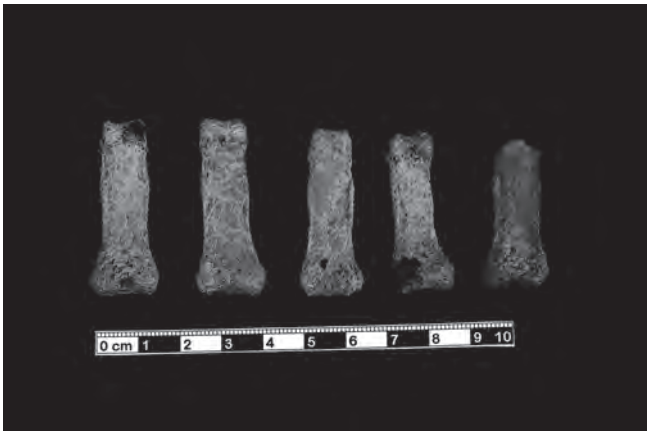


FIGURE 87. Bone lips on finger phalanges in male No. 15/75.

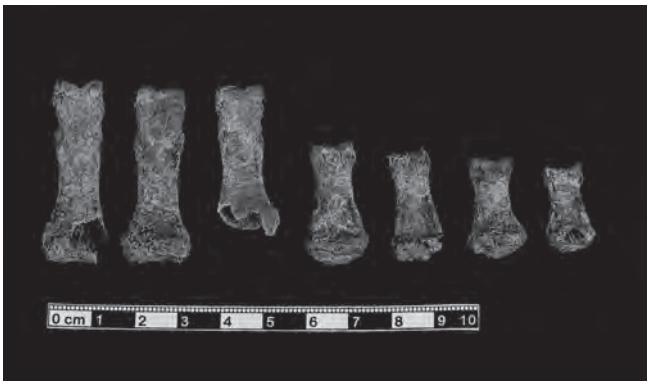


FIGURE 88. Bone lips on finger phalanges in male No. 57/78.

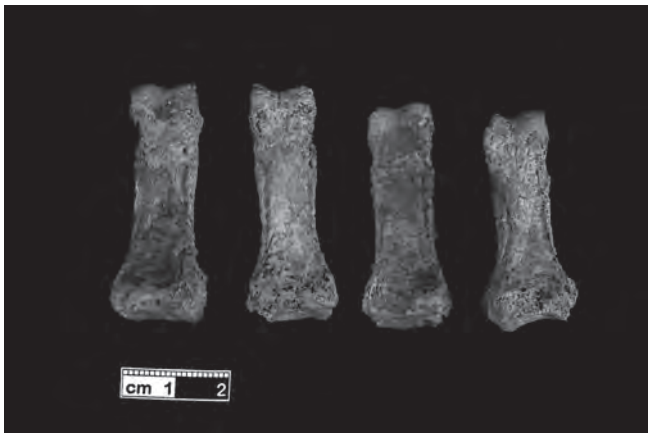


FIGURE 89. Bone lips on finger phalanges in male No. 77/79.

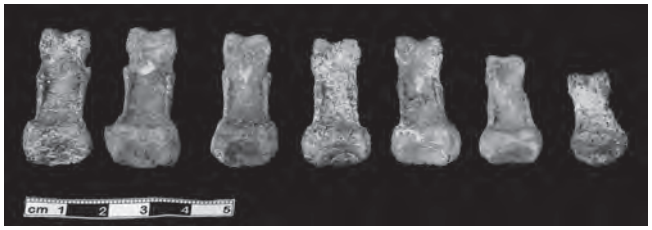


FIGURE 90. Bone lips on finger phalanges in male No. 10/74.

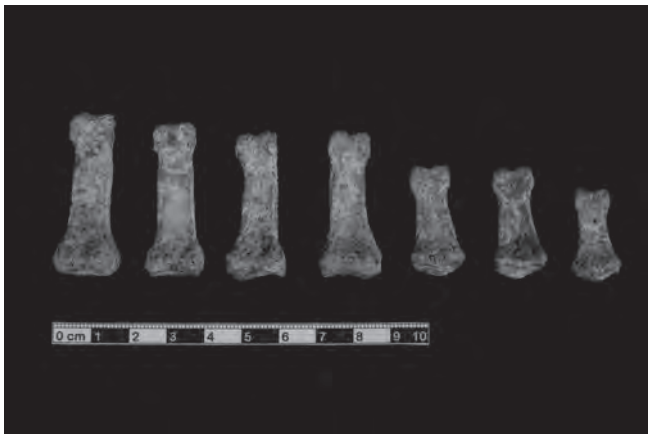


FIGURE 91. Bone lips on finger phalanges in male No. 76/78

bone lips emerged within a long time, maybe already from childhood, due to permanent but manifold working activity. This fact would be also underpinned by the differences in location and shape of bone lips on finger phalanges (*Figures 87–92*):

1. longitudinal bilateral bone lips on *phalanges proximales* (15/74, 23/75, 54/78)
2. bilateral bone lips only in the middle part of *phalanges proximales* (10/74, 57/78, 66 /72, 77/79, 82/79)
3. longitudinal unilateral bone lips on *phalanges proximales* (73/79, 79/79, 88/80)
4. bone lips on *phalanges proximales* and *phalanges mediae* (46/77, 57/78, 76/78)
5. bone lips only on *phalanges mediae* (79/79)

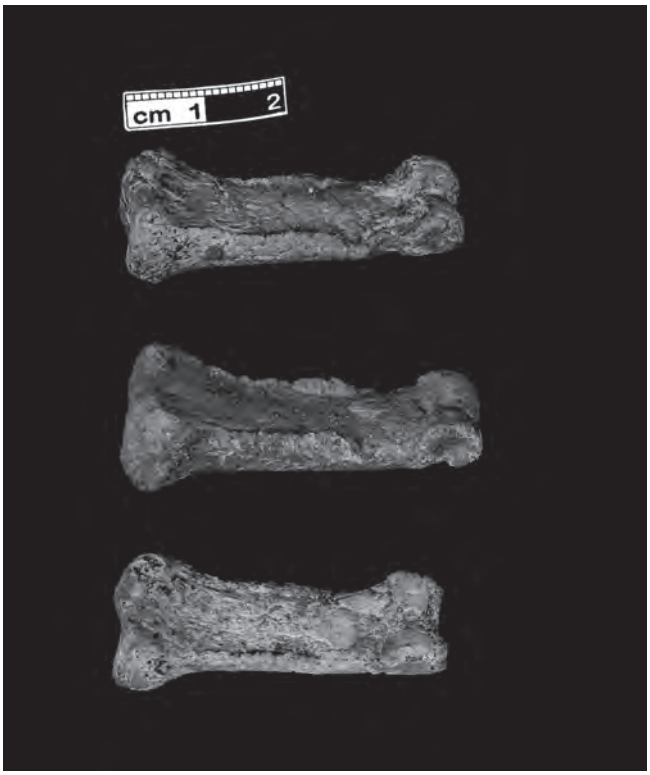


FIGURE 92. Bone lips on finger phalanges in male No. 79/79.

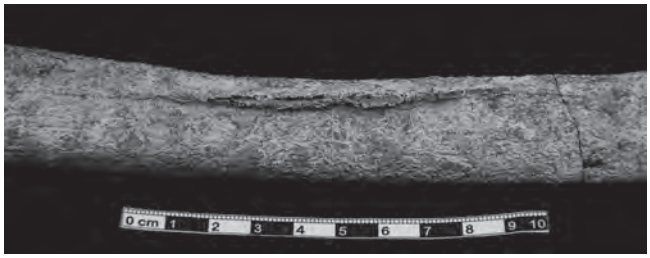


FIGURE 93. The right femur of male No. 57/78 with a distinct ridge at *linea aspera.*

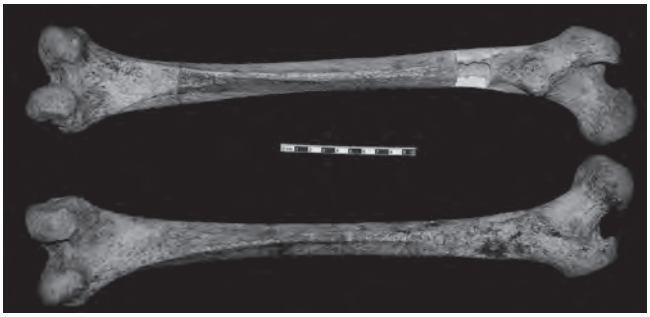


FIGURE 94. Distinct ridges from the attachments of muscles in femurs of male No. 73/79.

Skeleton of free lower limb: in accord with the overall robusticity of bones as well the femurs were robust, with massive articular heads, the attachments sites of gluteal muscles with a distinct *trochanter tertius*, *tuberositas glutaea*, and the attachment sites of *m. glutaeus maximus* (57/78, 69/78, 71/75). The femurs were slightly deflected

as a result of heavy load and unilateral bone strain, or due to a congenital deformation. The posterior side of femurs exhibits a longitudinal distinct attachment site *linea aspera* (*Figures 93–94*) and bony crests arisen from physical strain (54/77, 57/78, 76/79). Displays of heavy load were detected in knee joints and in dilated articular facets; bone destructions were also often caused by avitaminosis. Tibiae exhibited very distinct *tuberositas tibiae* in form of bony crests and S-curved anterior ridges. In isolated cases the *calcaneus* was found with bone outgrowths *calcar calcanei*.

Representation of females

The group of 48 females was divided by age as follows: 10 Juvenis (15–19 years), 8 Adultus I (20–29 years), 9 Adultus II (30–39 years), 9 Maturus I (40–49 years), 7 Maturus II (over 50 years), and 5 females of unspecified adult age. With regard to age, the examined skeletal series comprised 10 juvenile and 38 adult females. The evaluation focused on characteristic features typical of particular age categories, and on possible morphological differences detected.

Skulls: in 6 females the skulls were not preserved, and in 3 cases only cranial fragments occurred. In 7 females only the right or left half of the skull could be found, and in 4 females only partial cranial vault. In 13 females there was a damaged or incomplete *calvaria*. Only 15 females from the whole skeletal series exhibited a well-preserved skull with mandible.

The skulls of juvenile females were gracile as supposed, with indistinct *arcus superciliares*, small *processi mastoidei*, and flat glabella. Cranial occiput exhibited a weakly developed topography with indistinct *torus occipitalis* (27/76, 62/78, 83/80). The skulls of adult females were mostly medium-sized or robust, with arched feminine forehead, with flat glabella or glabella of stage I, with very small *arcus superciliares*, indicated frontal eminences and postorbital constriction, *processus marginalis* was irregular in shape. In several cases a prognathic maxilla (10/89, 68/78) could be detected, asymmetrically worn anterior teeth (70/79), and the use of teeth as work tools (*Figures 95–97*). Cranial occiput was arched or slightly angled, *planum nuchale* on the occipital bone exhibited a weakly developed *torus occipitalis* and indistinct topography. In robust skulls the forehead was arched or recessive, the supraorbital region mostly with a massive ridge *arcus superciliaris* (97/80), distinct glabella, wide zygomatic bones with *tuberculum marginale*, and robust *processi mastoidei*. Amongst all the females only one (75/79) had a very robust skull (*Figure 98a, b*). Mandibles were robust, with everted lateral margins, the surface furrowed due to masseteric tuberosities. In the occipital region occurred a prominent *protuberantia occipitalis externa*, uneven *planum nuchale,* and distinct attachment sites of neck muscles, which are typical of very robust skulls (22/75, 36/76, 45/77, 75/79, 81a/79). Maxillae and mandibles in older females already exhibited displays of senile character with alveolar fusions (9/74, 74/79, 83/80,

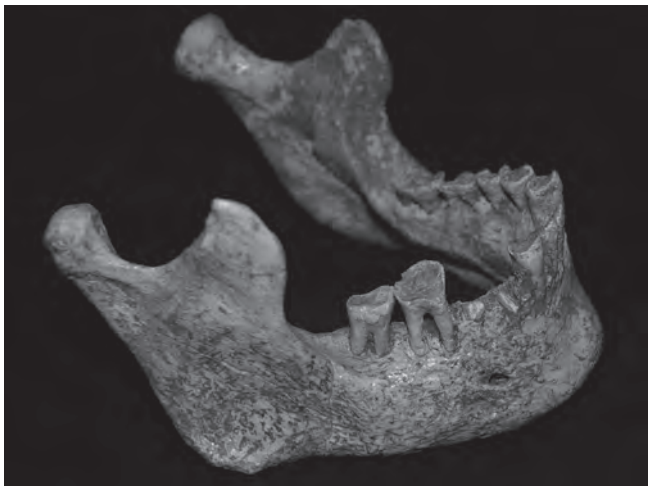


FIGURE 95. Mandible of female No. 6/88 with striations on teeth resulting from their being used as a work tool.

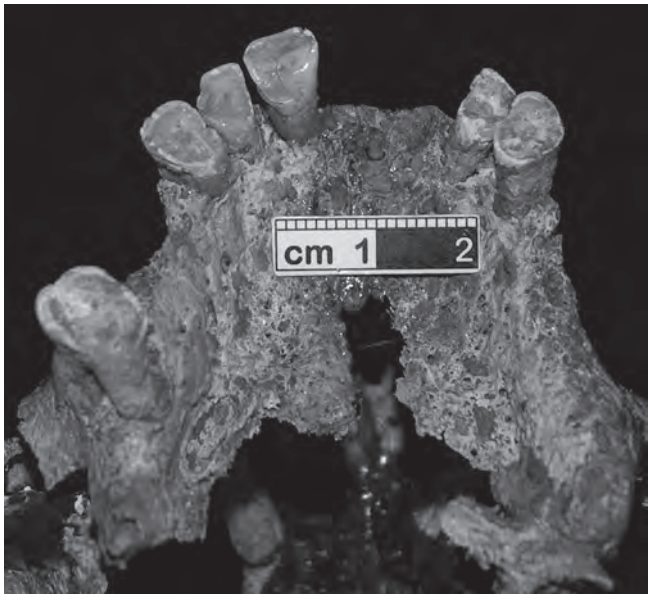


FIGURE 96. Maxilla of female No. 68/78 with surface striations in both I2 teeth.

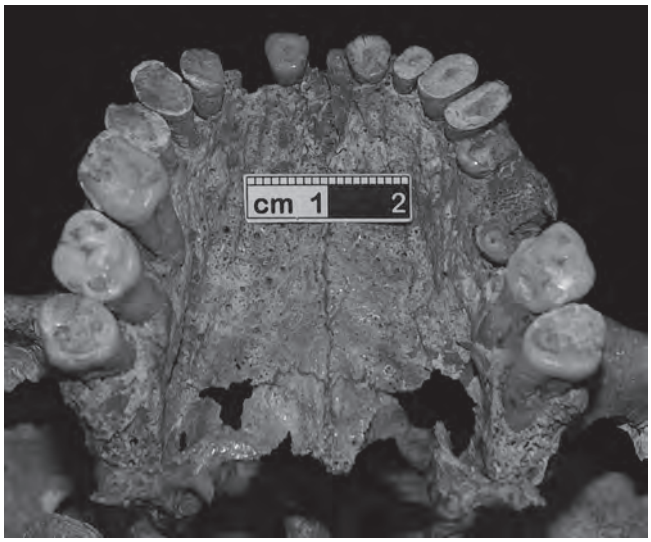


FIGURE 97. Maxilla of female No. 70/79 with deep longitudinal abrasion in anterior teeth.

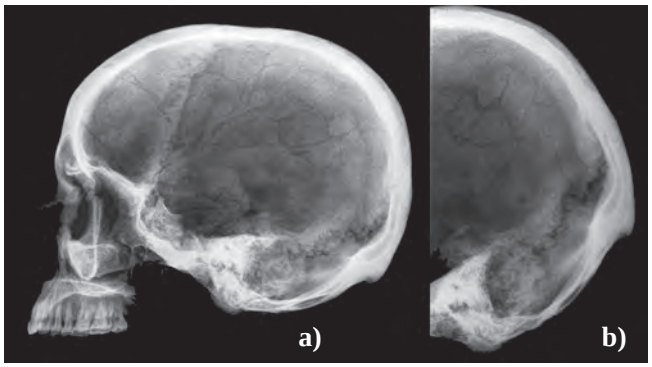


FIGURE 98a, b. X-ray image of the female skull No. 75/79, thickness of cranial bones, detailed view of the occipital region.

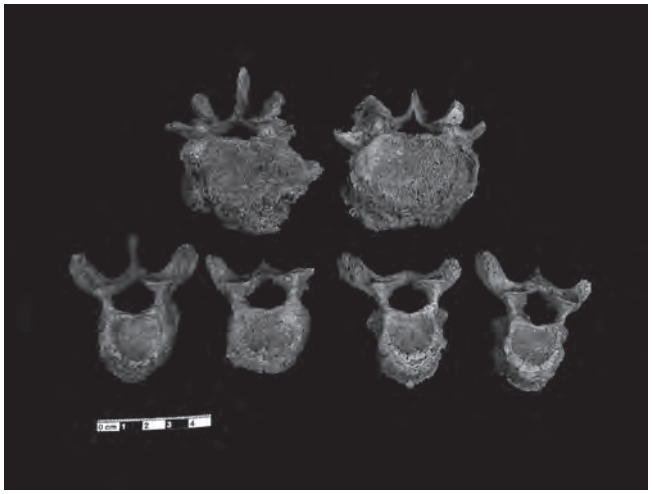


FIGURE 99. Shape deformations in thoracic and lumbar vertebrae with osteophytes in female No. 9/74.

FIGURE 100. Bone lip in vertebra L5 in female No. 10/89.

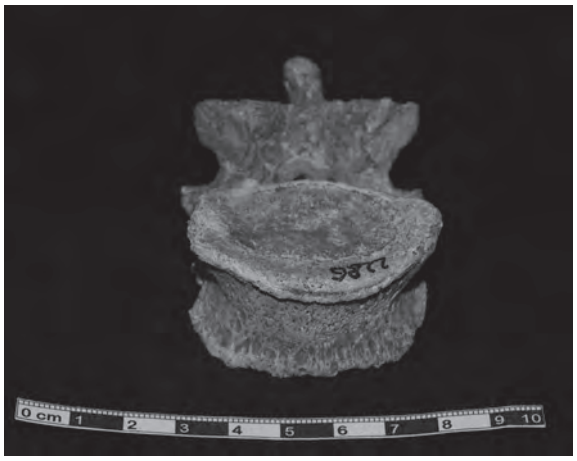


FIGURE 101. Bone lip in vertebra L3 in female No. 22/75.

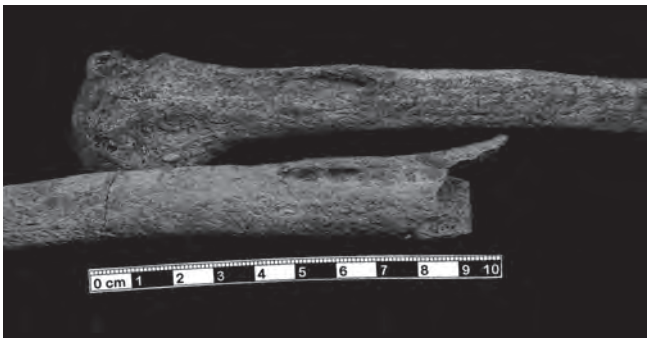


FIGURE 102. Deep cavities and bone depressions from physical load in the proximal part of humeri in female No. 14/75.

FIGURE 103. Deflection and cavities in the proximal part of humeri in female No. 68/78.

103/81). In the orbital roofs of female skulls occurred *cribra orbitalia* (see Palaeopathology).

Vertebral column: the vertebrae in females were mostly not preserved, the extant thoracic and lumbar vertebrae exhibited spondylosis (9/74, 22/75), osteophytes (68/78) or arthritis (*Figures 99–101*). The destruction of vertebral column was caused by lowered height of vertebral bodies, and by the effects associated with vanishing intervertebral discs and subsequent emergence of Schmorl's nodes (64/78) and vertebral fusions (64/78, 104/81). Isolated cases of damage could be detected in vertebral columns of Neolithic females but, unfortunately, the low degree of preservation of vertebrae was not sufficient for any interpretation. It can be assumed that working activities in females have put strain on the arms and vertebral column so that the overload displays caused a permanent alteration of bone relief. This assumption, however, cannot be proved on the material from Vedrovice.

Skeleton of free upper limb: a distinct muscular topography in the humeri testified to well-built deltoid muscles (22/75, 72/79), and displays such as bone cavities

at *sulcus intertubercularis* (21/75, 91/80), emergence of deep striations caused by overload, enthesopathy (*Figure 102*) but also cases of absent biceps muscles (45/77, 64/78) could be detected even in gracile females. Permanent work load gave also rise to deflected long bones (*Figures 103, 104*) and forearm bones (*Figures 105–108*). The displays on right and left arms were identical, but also cases of unilateral hypertrophy in the elbow joint occurred (68/78) or the bilateral robusticity (*Figures 109, 110*). Not only the alterations caused by exhausting physical work but also the effects of repeated working activity were found in the hands of 13 females. On finger phalanges there are distinct attachment sites of short flexors in proximal (I) and medial (II) phalanges, except the thumbs (*Figures 111–115*). Distinctive bilateral bone lips can be observed either only on *phalanges proximales* (22/75, 102/81) or on both *phalanges proximales* and *phalanges mediae* (21/75, 68/78, 70/79, 91/80, 104/81) or only in the middle parts of *phalanges proximales* (9/74, 97/80). Cases of finger phalanges without bone lips occurred as well (64/78, 72/79).

Os coxae: the hip bone in females is important not only for the determination of sex basing on the shape of *incisura ischiadica major*, but also for the information whether or not the female had delivered during her life, according to the presence of *sulcus praeauricularis* on the pelvis (*Figures 116–121*). From the series of 48 females examined there are 19 females who had delivered, according to preserved *sulcus praeauricularis* on their pelvic bones (9/74, 10/89, 22/75). Two females had died during delivery (81/79, 93/80, *Figures 65–66*), in two females (48/77, 91/80) the present *sulcus praeauricularis* was not conclusive, and in one case it was not sufficiently preserved (105/81). The pelvis in several females was not extant, and only 6 females of the entire skeletal series had not delivered (75/79, 94/80, 97/80, 101/81, 6/88, 9/88).

Skeleton of free lower limb: the female femurs were either long and slender or robust, with distinct topography at the attachment sites of gluteal muscles forming a deep cavity below the *tuberositas glutaea* (36/76, 68/78, 1/85, 6/88), a large tubercle below the trochanter (70/79) as well as lateral bone depressions (91/80, 93/80, 94/80). The shape of *linea aspera* was either indistinct (75/79, 80/79) or distinctive (103/81). In two females an asymmetry in the length of femurs could be detected – *femur dx.* in skeleton 21/75 is longer by 1.5 cm (*Figure 126*), and in skeleton 64/78 by 1.3 cm; the bone extension corresponded with somewhat more obtuse collo-diaphyseal angle. This different collo-diaphyseal angle probably caused waddling gait or was compensated at walking by such a posture that evoked alterations in the lumbar region of vertebral column. As significant indicators of the state of health can be considered the detected Harris lines, which were present only in four females (36/76, 64/78, 68/78, 75/79).

Representation of children

The examined skeletal series comprised the remains of 33 children who were divided by age as follows: 5 newborns

FIGURE 104. Deflection and distinct muscle attachment sites in the proximal part of humeri in female No. 91/80.

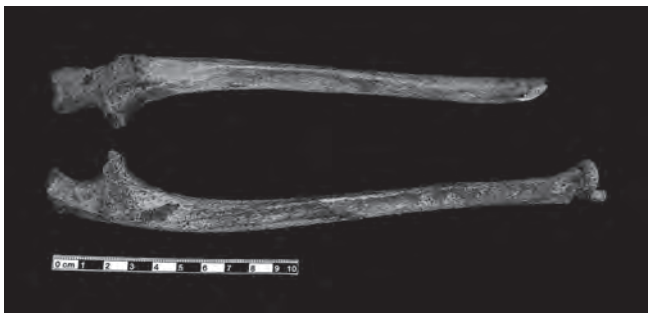


FIGURE 105. Deflection of ulnae in female No. 22/75.

FIGURE 106. Deflection and distinct muscle attachment sites in ulnae of female No. 42/77.

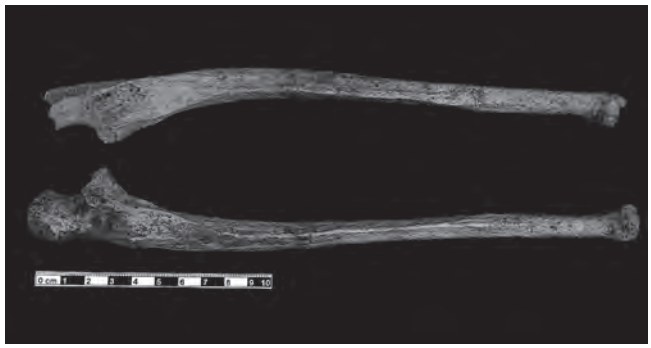


FIGURE 107. Deflection of ulnae in female No. 70/79.

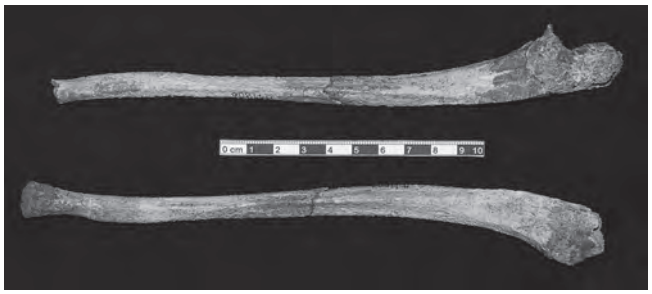


FIGURE 108. Deflection and distinct muscle attachment sites in ulnae of female No. 107/82.

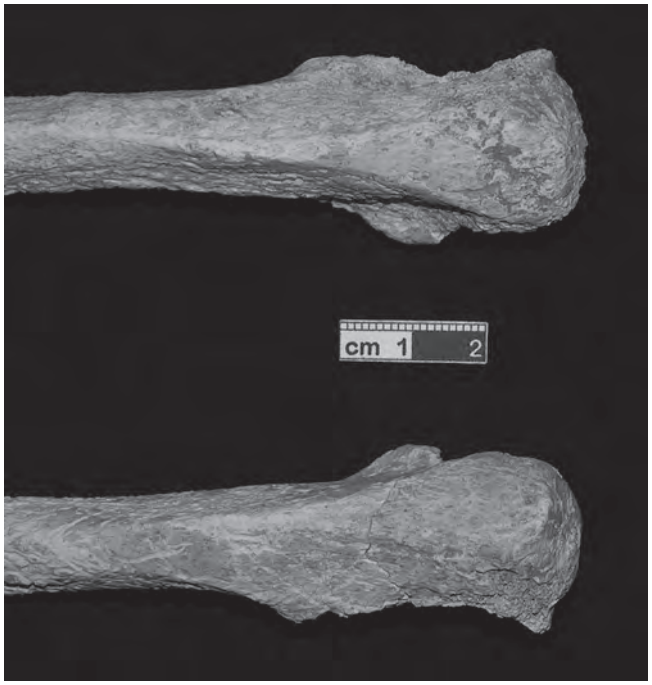


FIGURE 109. Hypertrophy in ulnae of female No. 10/89.

FIGURE 110. Cavities and sharp ridges in ulnae of female No. 68/78.

FIGURE 111. Bone lips on finger phalanges in female No. 9/74.

FIGURE 112. Bone lips on finger phalanges in female No. 21/75.

Infans I (until 5 months), 14 Infans II (5 months to 6 years), 14 Infans III (7–14 years). With regard to general representation in categories Infans II–III, the number of children was balanced.

Most frequent amongst the skeletal remains of children and newborns were skulls and cranial bones. In orbital roofs appeared *cribra orbitalia* (1/63, 3/86, 5/88), which belong to effects of health or alimentation disorders. In children also occurred the damage and wear of deciduous teeth and dental enamel, probably caused by consumption of hard food (Smrčka *et al.* 2005). The bones of postcranial skeleton are in most cases insufficiently preserved. The state of health in children had been followed up with regard

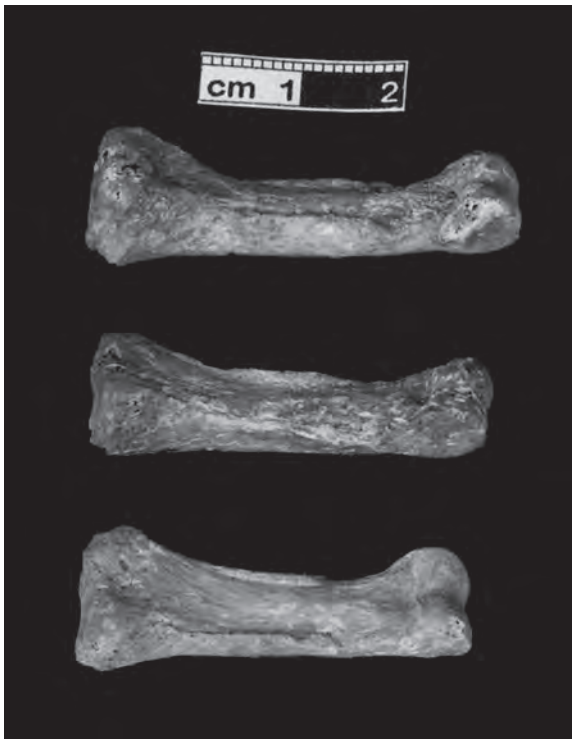


FIGURE 113. Bone lips on finger phalanges in female No. 22/75.

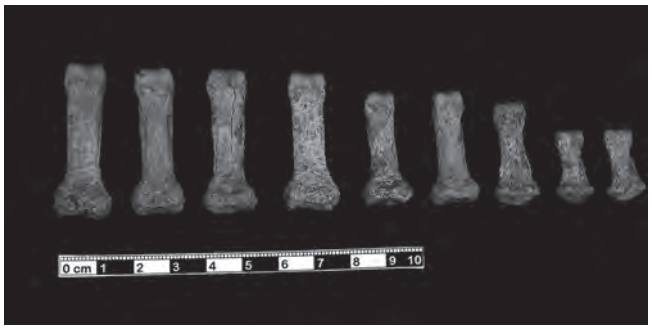


FIGURE 114. Bone lips on finger phalanges in female No. 70/79.

FIGURE 115. Bone lips on finger phalanges in female No. 104/81.

to the presence of Harris lines, which are recording the retardation of growth in the time of strain of the organism. From the whole series of 34 children, tibiae were found only in 20 individuals whereby in eight of them the Harris lines were detected. The highest abundance of these lines could be registered in two cases – in the 6–7-year-old

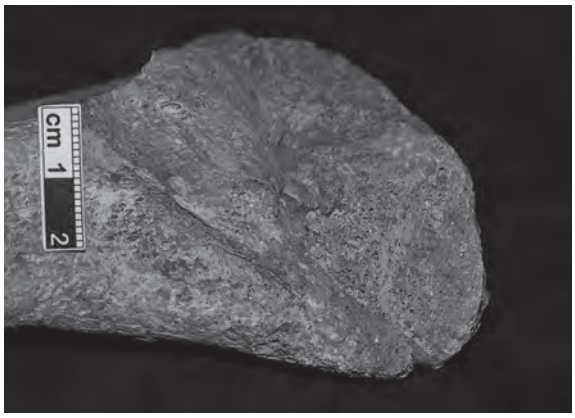


FIGURE 116. The right half of the pelvis of female No. 9/74 with preauricular groove.

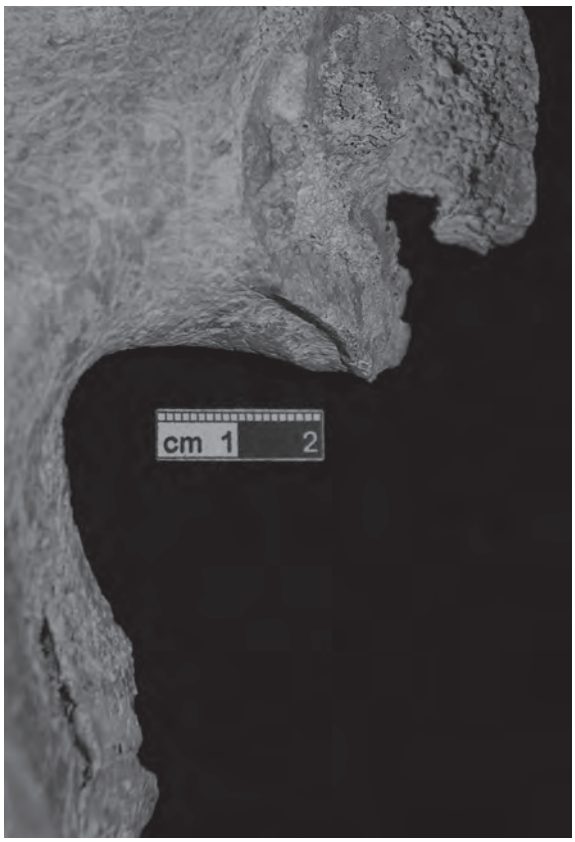


FIGURE 117. The right half of the pelvis of female No. 10/89 with preauricular groove.

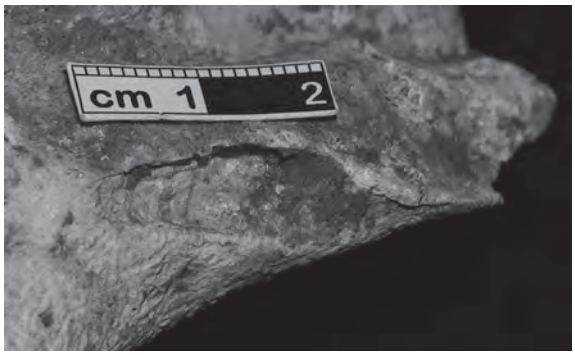


FIGURE 118. The right half of the pelvis of female No. 22/75 with deep preauricular groove.

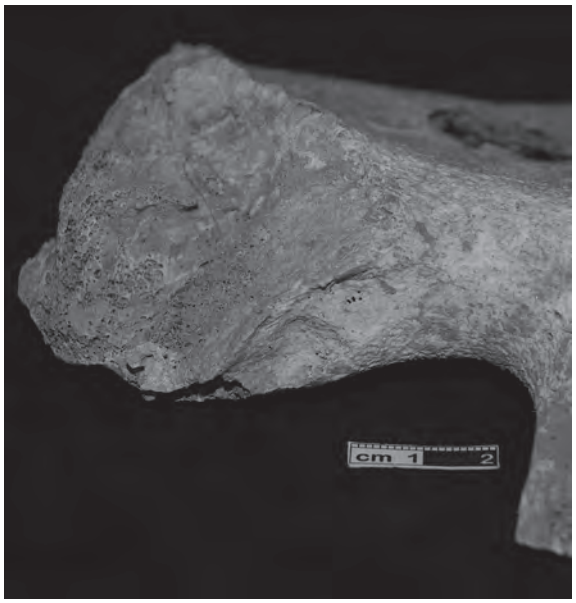


FIGURE 119. The left half of the pelvis of female No. 68/78 with two preauricular grooves.

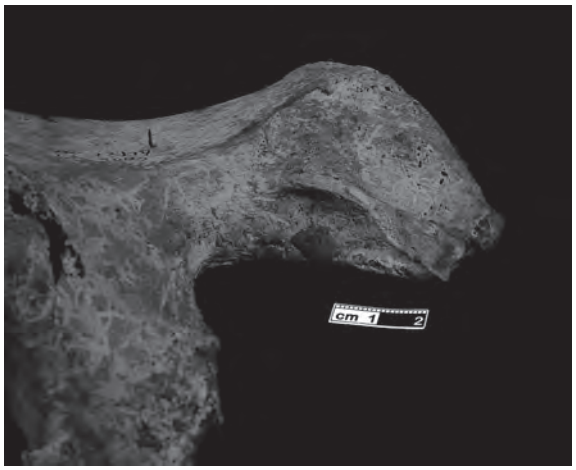


FIGURE 120. The right half of the pelvis in female No. 72/79 with two preauricular grooves.

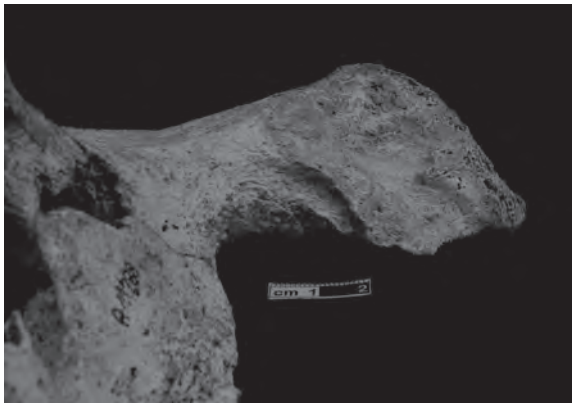


FIGURE 121. The right half of the pelvis in female No. 86/80 with deep preauricular groove.

FIGURE 122. X-ray image of tibiae of the 6–7-year-old child No. 18/75 with Harris lines.

FIGURE 123. X-ray image of tibiae of the 4-year-old child No. 12/96 with Harris lines.

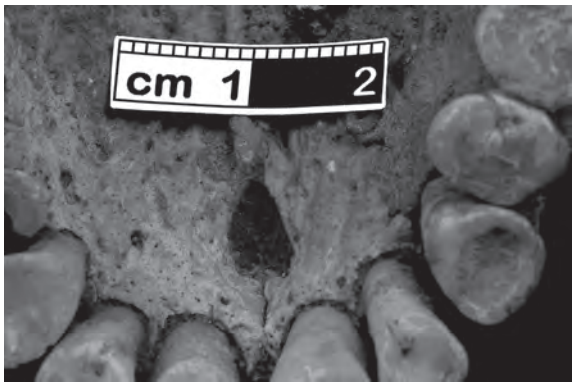


FIGURE 124. Congenital defect – dilated *canalis incisivus* in male No. 10/1974.

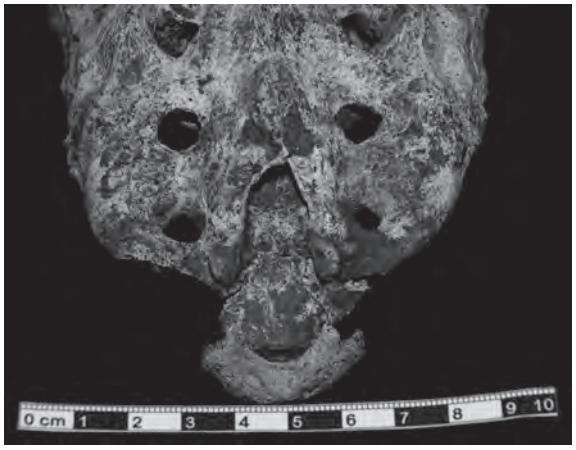


FIGURE 125. Cleft spine *spina bifida* in male No. 76/79.

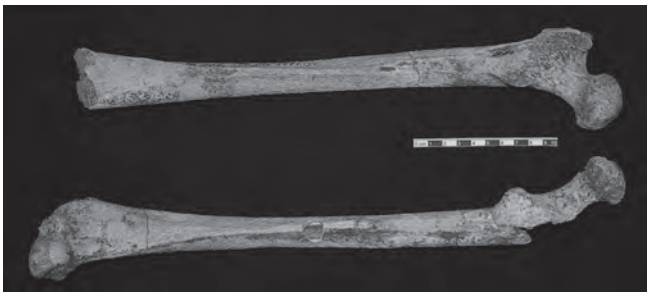


FIGURE 126. Different lengths of femurs in female No. 21/75, the right femoral bone is longer by 1.5 cm.

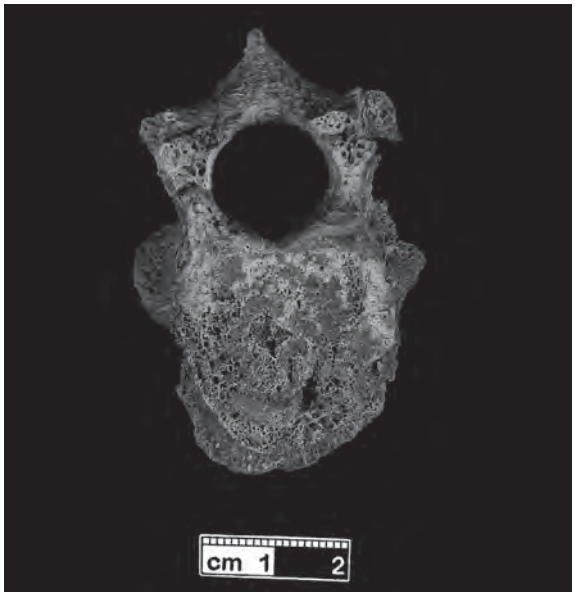


FIGURE 127. Schmorl's node in lumbar vertebra of female No. 29/76.

child 18/75 (*Figure 122*) and the 4–year-old child 12/96 (*Figure 123*).

PALAEOPATHOLOGY

Material and method

In 110 preserved skeletons from Vedrovice a series of symptoms and diseases was studied, according to which the state of health of the investigated Neolithic population can be characterised. The skeletal material was macroscopically examined in detail, the detected pathological lesions were documented by photographs and drawings, and entered into a database catalogue. For the purpose of a more precise diagnostics of traumatic states an X-ray and CT examination was carried out in the St. Anna's Faculty Hospital in Brno. The radiological examination had been applied to 30 skulls, 10 mandibles, 15 vertebrae and 105 long bones. A precise diagnosis determination was based on radiographs showing either a normal bone structure or an alteration that resulted in the acquired affliction (Hummert, Greven 1985).

Congenital anomalies are hard to distinguish from the conditions acquired during life in afflicted individuals; the findings occur on skulls, vertebral columns and lower limbs. On the skulls of two males – 10/74, 40–49 years (*Figure 124*) and 76/79, 30–35 years a congenital defect in *torus palatinus* was detected, and dilated *canalis incisivus*.

The cleft spine, so-called *spina bifida*, occurs often in the skeletal material treated, and belongs to common congenital defects. Open arches of *canalis sacralis apertus* in the sacral region of vertebral column were found in skeletal remains of the male 76/79 (*Figure 125*). The female 72/79 exhibited a congenital depression on *facies articularis ossis sacri*.

On lower limbs a difference in bone length was detected between the right and left femurs; such a defect belongs to genetically congenital attributes. The asymmetry in length was recorded in lower limbs of two females (21/75, *femur dx*. longer by 1.5 cm, and 64/78, *femur dx*. longer by 1.3 cm). The extension of bone resulted in a different (higher) collo-diaphyseal angle (*Figure 126*). The change of angle between the long bone and the joint caused waddling gait, a different posture at walking, which also corresponded with bone alterations in the lumbar region of vertebral column at the L5 and S1 vertebrae.

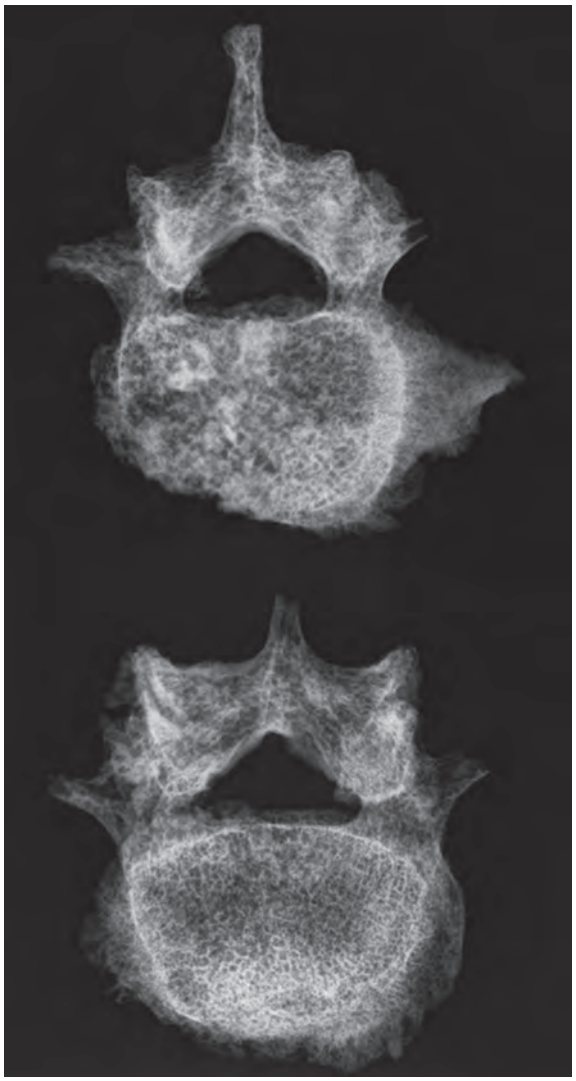


FIGURE 128. X-ray image of a thoracic and a lumbar vertebra with Schmorl's nodes in female No. 9/74.

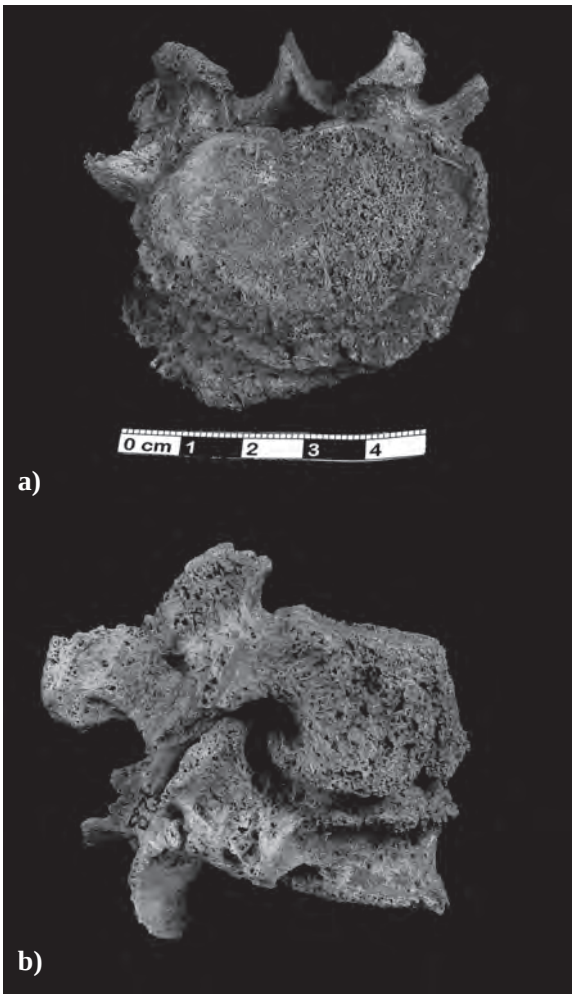


FIGURE 129a, b. Lumbar vertebrae with osteophytes sized 2–4 mm in female No. 9/74.

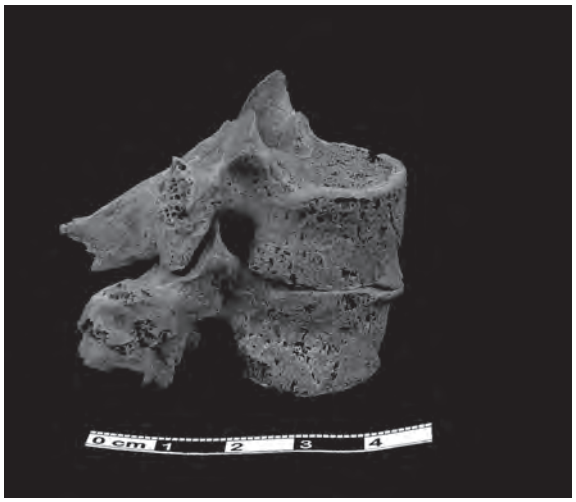


FIGURE 130. Thoracic vertebrae with osteophytes sized 1–2 mm in female No. 10/89.

Degeneratively productive diseases are causes of deformative spondyloses in form of osteophytes and enthesophytes on the vertebral column, lowered vertebral bodies, and vanished intervertebral discs. On the skeletons treated appeared pathological displays comprising degenerative alterations in form of so-called *osteophytes* (spondylophytes) at the perimeter of intervertebral discs or round depressions on terminal surfaces of vertebral bodies, so-called Schmorl's nodes (*Figure 127*).

Osteophytes or Schmorl's nodes sized 2–4 mm could be found in thoracic region (*Figure 128*) of a female aged 50–59 years (9/74), osteophytes sized 1–2 mm with indicated bone lip in lumbar vertebrae (*Figure 129a, b*) of a female aged 20–25 years (*Figure 130,* 10/89). The female 104/81 exhibited a fusion between *os sacrum* and vertebra L1 (*Figure 131*), the male 79/79 had a lowered vertebra L1 (*Figure 132a, b*) with bone lip at the margin, and L2 with osteophytes.

One of the displays of deformative spinal spondylosis is represented by round and linear depressions on terminal surfaces of vertebral bodies. Small osteophytes were found in a 40–49-year-old male (10/74); lowered vertebral bodies and osteophytes in vertebrae Th11, Th12 and L3 in a 45–55-year-old male (11/74); an osteophyte on Th12

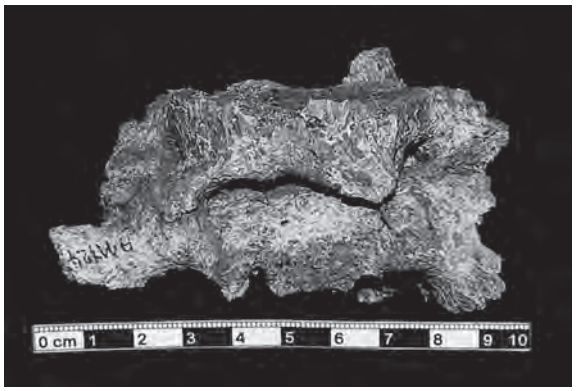


FIGURE 131. Fusion between *os sacrum* and lumbar vertebra L1 in female No. 104/81.

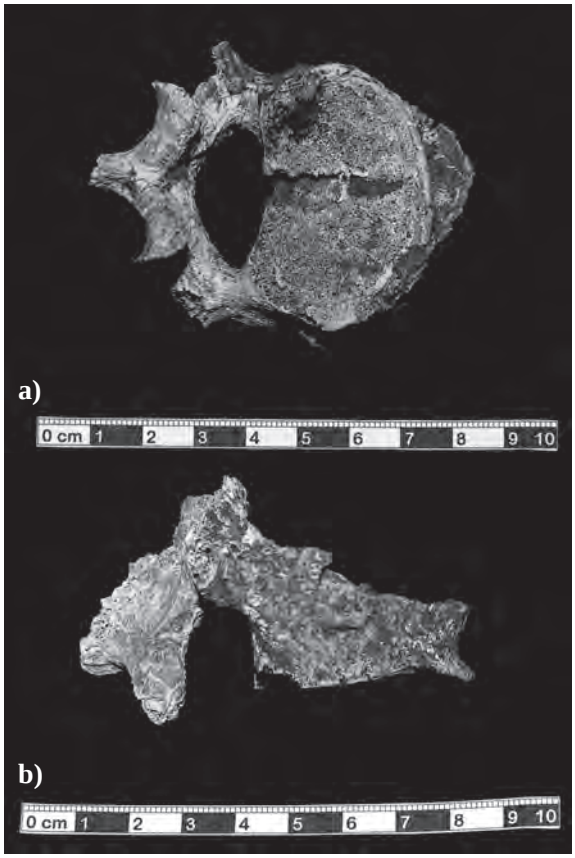


FIGURE 132a, b. Reduced vertebral body L1, and osteophytes in male No. 79/79.

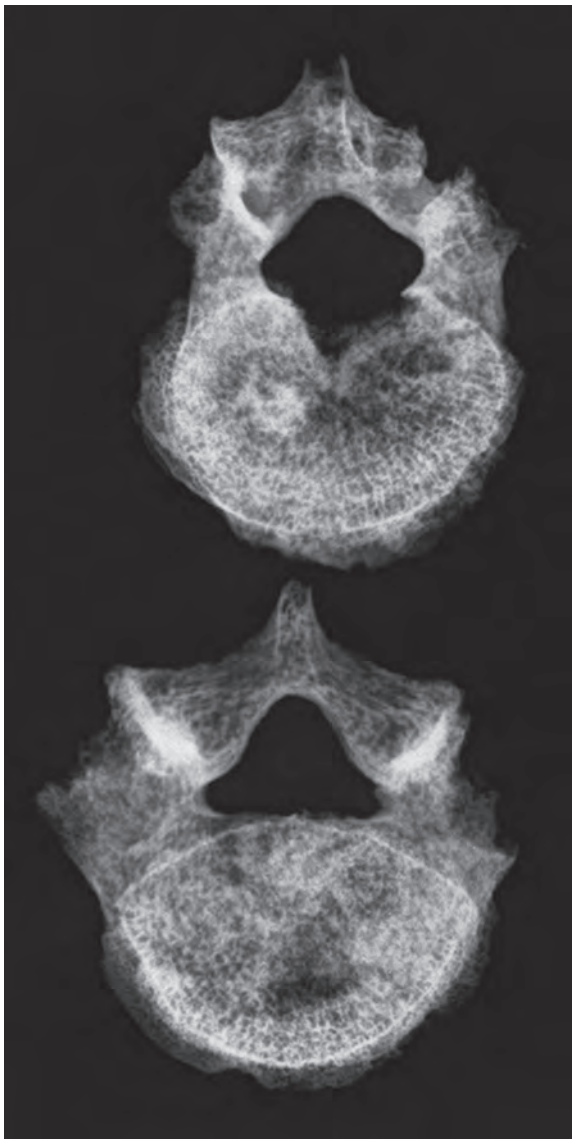


FIGURE 133. X-ray image of lumbar vertebrae with Schmorl's nodes in female No. 93a/80.

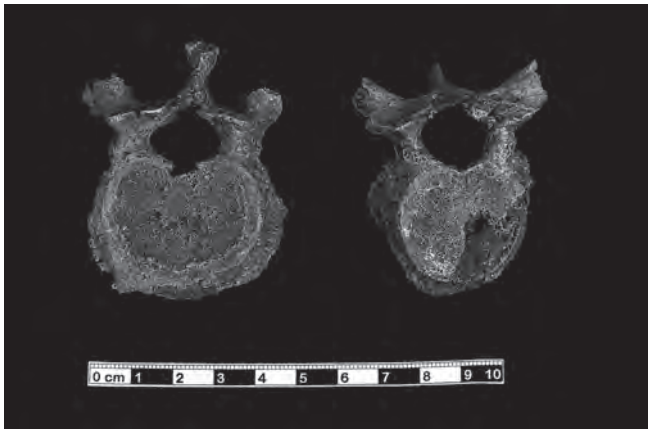


FIGURE 134. Schmorl's nodes in lumbar vertebrae of male No. 11/74.

in a 35–40-year-old male (15/75); cervical, thoracic and lumbar vertebrae with osteophytes in a 40–50-year-old male (77/79); lowered body of the lumbar vertebra L1 in a 25–35-year-old male, (79/79); an osteophyte on the lumbar vertebra L3 in a 35–45-year-old female (22/75); vertebrae with Schmorl's nodes in two females aged 18–25 years (64/78) and 18–26 years (*Figure 133,* 93/80), and two males aged 45–55 years (*Figure 134*, 11/74) and 25–35 years (*Figure 135,* 79/79).

DISH (*Diffuse Idiopathic Skeletal Hyperostosis*) – the complete image of this affliction connected with the examined morphology of Neolithic individuals

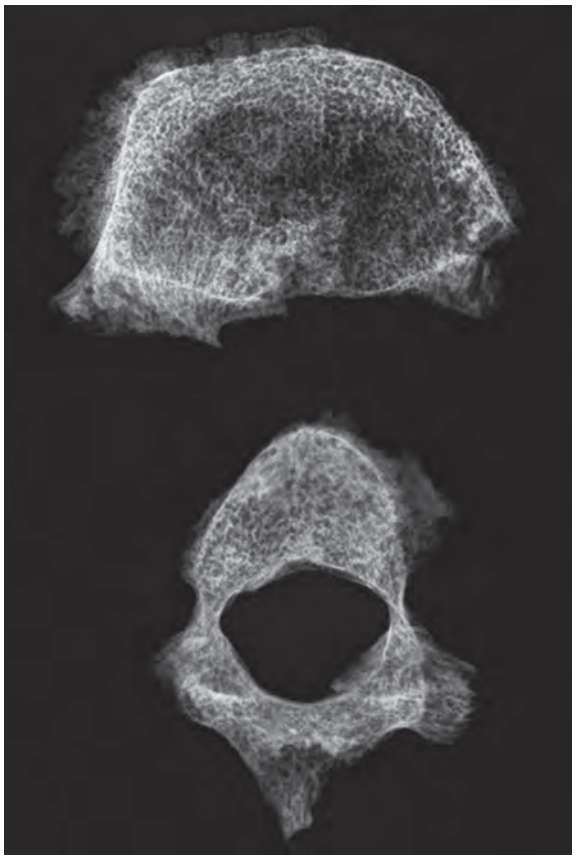


FIGURE 135. X-ray image of lumbar vertebrae with Schmorl's nodes in male No. 79/79.

comprises the ossification of ligaments and tendons (so-called *enthesopathy*), calcification of ligaments around the symphysis or of muscle attachment sites at *tuber ischiadicum*, femoral *trochanter major* and *minor*, and *tuber calcanei*.

Traumas and surgical interventions include fractures, injuries, deformations and mutilations, trepanations, amputations, and lethal injuries. Solitary fractures as well as multiple injuries were detected in long bones (Micozzi 1991). Skeleton 11/74 of an adult male aged 45–55 years was found with a smooth humeral fracture, an irregular fibular fracture, and a spiral tibial fracture (Myers *et al.* 1980). The bone surface was coated with sinter, the interventions on bones were performed prior to burial when an organic component was present in the bones (*Figures 133–135*). In the left forearm of the 50-year-old male 82/74 (Crubézy 1969) an amputation could be detected, and in the frontal bone of the 35–40-year-old male 15/75 (*Figure 137a, b, c*) a healed injury could be observed.

Non-specific inflammations comprise the inflammations of bone marrow (*osteomyelitis*), of the periosteum (*periostitis*), and of bones (*ostitis*). The non-specific chronic osteomyelitis is caused by a pathogenic microorganism, and results in destructive alterations and extensive cavities with traces of chronic smoothing of the surface (Moseley 1966). Periostitis, inflammation of the periosteal membrane, was detected in the child 7/72 (newborn) as a parietal form with

FIGURE 136. Spiral fracture of the right femur in male No. 11/74.

radial arrangement of furrows in the region *facies interna ossis parietalis* (*Figure 138*). Osteoporotic alterations on inside of skull were found in a 4-year-old child (12/96) along the *sulcus sagittalis superior* at an area sized 90x40 mm. The chronic inflammation is also indicated by a considerable increase in *periostitis*, the afflicted bone is thickened at the place of infection, and the bone surface is rough. A series of small perforations was found in the tibia of the 30–year-old male 99/81 (*Figure 139*), and alterations of bone surface in the tibia of the 25–30-year-old male (69/78). On the male skull 82/79 a small osteoma (20x10 mm) was detected at the left *facies temporalis* (*Figure 140*), arisen through a contusion of osteocytes.

Anaemic displays on bones – porotic hyperostosis (porousness, porosity) is one of possible displays of bloodstream disorders or anaemias of various origin. In most cases it appears in parietal and occipital regions of the skull, and on ribs. Porosity in costal region was detected in the female 9/74 aged 50–59 years (*Figure 141*), and in the

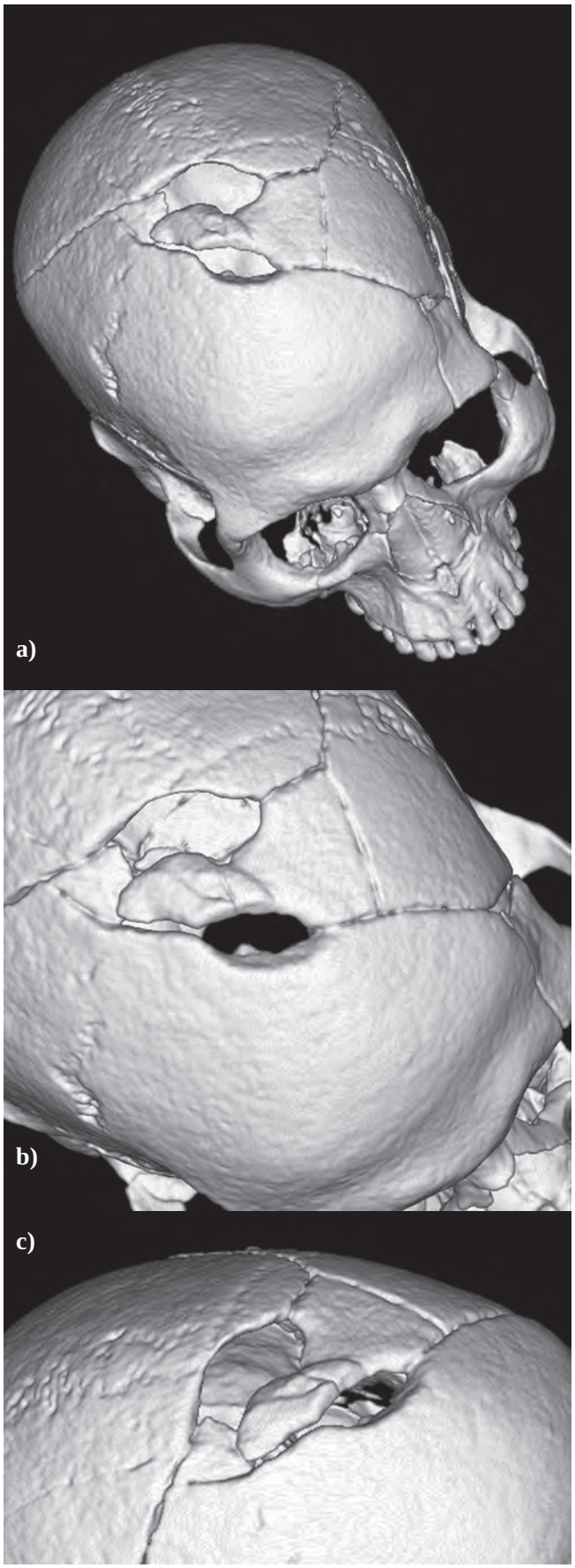


FIGURE 137a, b, c. Healed injury on the skull of a 35–40-year-old male, No. 15/75.

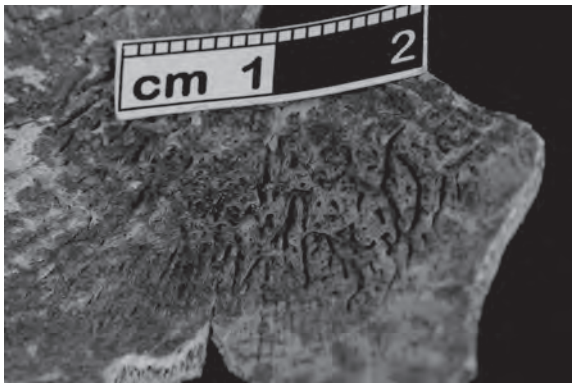


FIGURE 138. Periostitis inside the skull of a newborn, No. 7/72.

FIGURE 139a, b. Chronic inflammation of tibia with detailed view of a surface perforation in male No. 99/81.

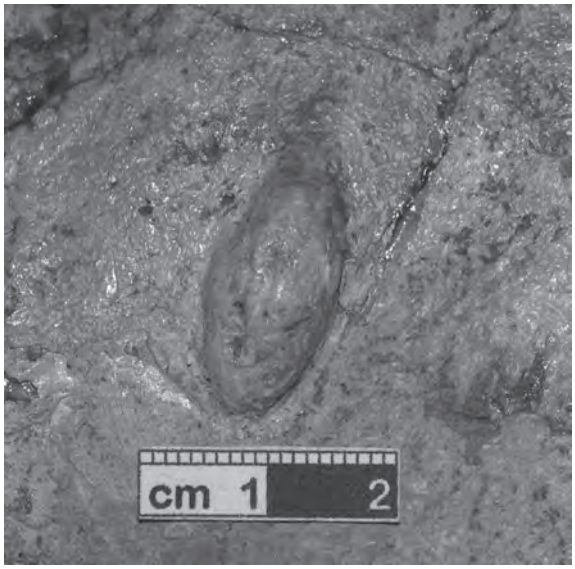


FIGURE 140. Bone osteoma (20×10 mm) on the male skull No. 82/79.

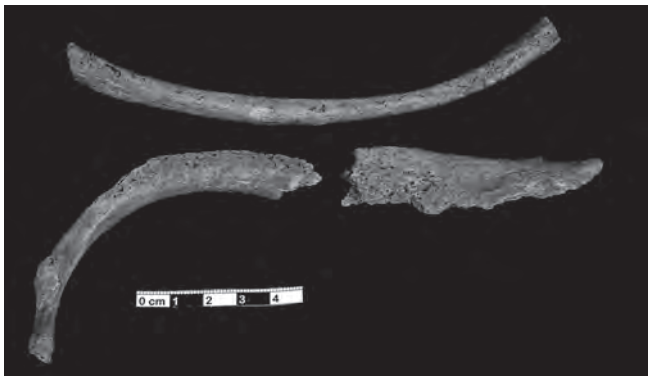


FIGURE 141. Porosity of ribs in a 50–59-year-old female, No. 9/74.

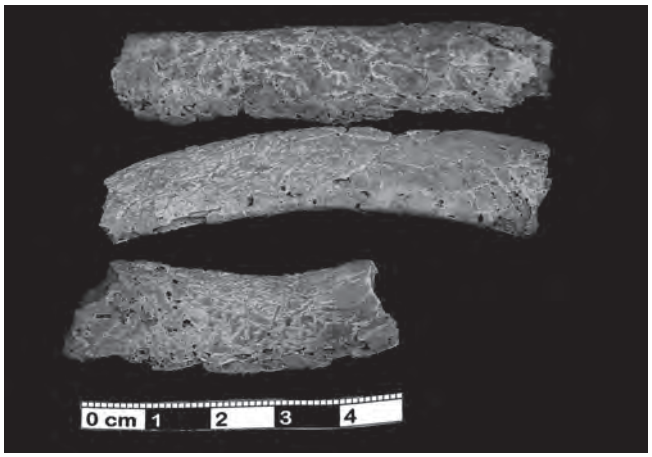


FIGURE 142. Porosity of ribs in a 40–49-year-old male, No. 10/74.

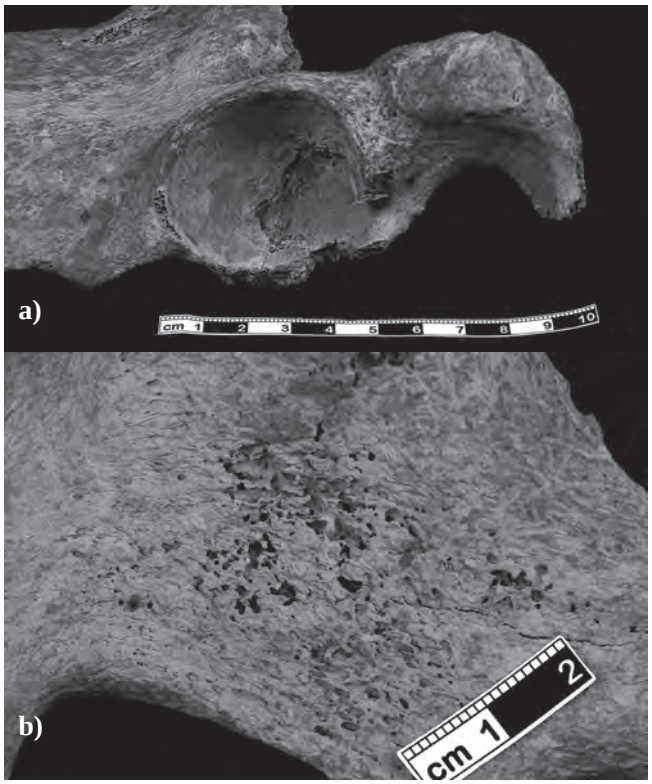


FIGURE 143a, b. Coalescent porosity in pelvic acetabulum in a 20–25-year-old female, No.10/89.

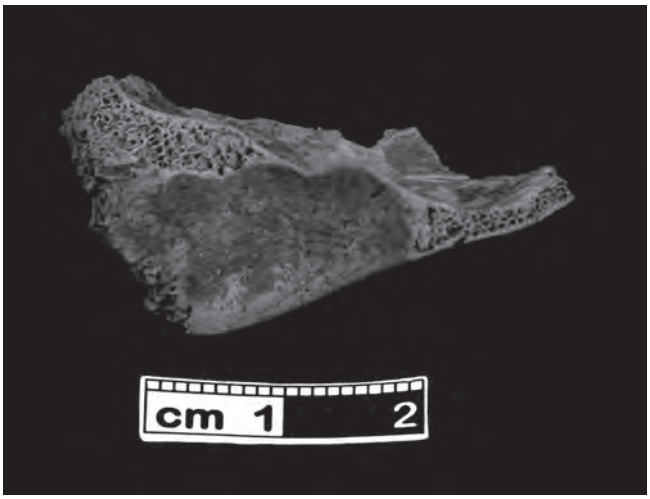


FIGURE 144. *Cribra orbitalia* in the left orbit of newborn No. 1/63.

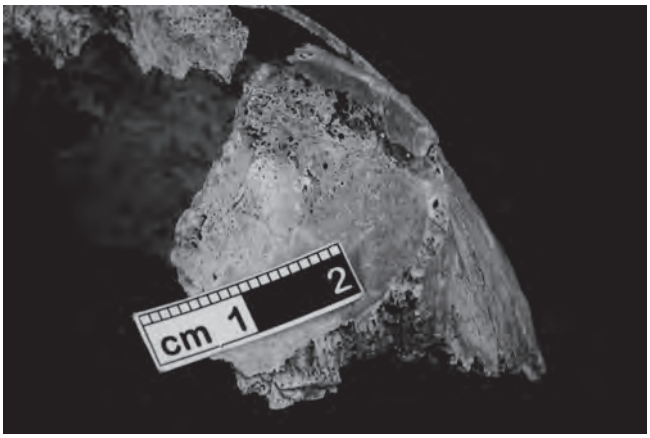


FIGURE 145. *Cribra orbitalia* in the left orbit of child No. 3/86 (1.5–2 years).

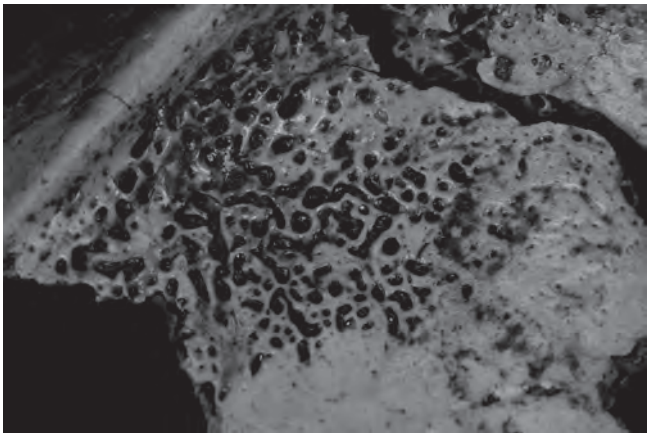


FIGURE 146. Multiple *cribra orbitalia* in the left orbital roof in child No. 5/71 (6–7 years).

male 10/74 aged 40–49 years (*Figure 142*). On pelvic bones of a 20–25-year-old female (10/89) there was a bilateral coalescent porosity in acetabular region (*Figure 143a, b*).

Cribra orbitalia are considered as one of possible displays of anaemias of various origin or of malnutrition.

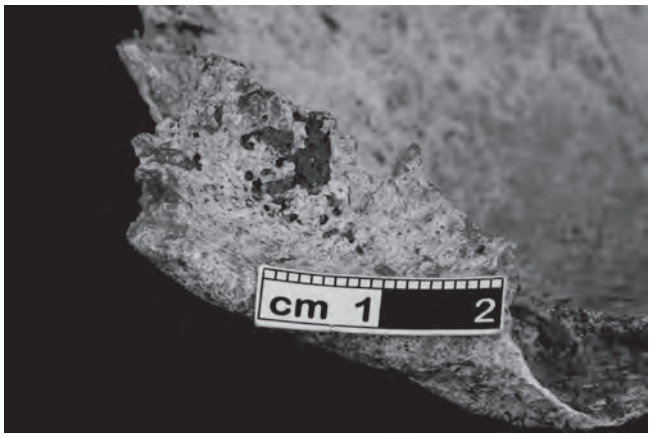


FIGURE 147. Coalescent *cribra orbitalia* in the left orbit of a 25–30-year-old male, No. 2/85.

They evoke bone responses (destruction and neoformation) in the anterior part of orbital roofs. We distinguish 4 types according to a scheme by Knip (Knip 1971), from a porotic to a trabecular form. *Cribra orbitalia* in the left orbital roof were found in the newborn 1/63 (*Figure 144*), in the child 3/86 aged 1.5–2 years (*Figure 145*), and multiple *cribra orbitalia* in the left orbital roof occurred in the 6–7-year-old child 5/71 (*Figure 146*). In two females, 72/79 (30–40 years) and 83/80 (60+ years), *cribra orbitalia* were detected in the left orbit. In the 25–30-year-old male 2/85 (*Figure 147*) there are coalescent *cribra orbitalia* (II) in the left orbit, in a 45–55-year-old male (11/74) bilateral non-coalescent *cribra orbitalia* (I), and in a 17–20-year-old male (23/75) *cribra orbitalia* could be detected in both orbits. Repeated occurrence of *cribra orbitalia* testifies to a long-time starvation (Hungen 1971), some nutritional defect, iron deficiency or intestinal diseases. The destruction of orbits (Carlson *et al.* 1974) is usually closely associated with the presence of Harris lines (Piontek *et al.* 2001).

Unclassified osteopathies – Harris lines are horizontal sclerotic lines, which can be found in metaphyses of long bones. They are composed of a layer of thickened trabeculae of spongious bone that occur at distal and proximal ends of tibiae. In order to prove the presumed occurrence of Harris lines in clavicles, an X-ray imaging of *claviculae sin.* et *dx.* was carried out. Neither of the total number of 57 radiographs showed any Harris lines in claviculae, even in those cases where *cribra orbitalia* were present in 27 individuals.

The reason for the occurrence of Harris lines has been discussed, possible causes are: growth retardation in the time of strain of the organism, suffered febrile diseases, starvation or stress situations (Lewis, Roberts 1997, Horáčková *et al.* 2004). In the Neolithic population from Vedrovice, Harris lines were found in 15 males (*Figures 148–157*), 4 females (*Figures 158–161*) and 8 children (*Figures 122, 123*).

FIGURE 148. X-ray image of tibiae with Harris lines in a 20–35-year-old male, No. 46/75.

FIGURE 149. X-ray image of tibiae with Harris lines in a 20–25-year-old male, No. 54/78.

FIGURE 150. X-ray image of tibiae with Harris lines in a 40–50-year-old male, No. 57/78.

FIGURE 152. X-ray image of tibiae with Harris lines in a 20–25-year-old male, No. 73/78.

FIGURE 151. X-ray image of tibiae with Harris lines in a 20–30-year-old male, No. 69/78.

FIGURE 153. X-ray image of tibiae with Harris lines in a 40–50-year-old male, No. 77/79.

FIGURE 154. X-ray image of tibiae with Harris lines in a 25–35-year-old male, No. 79/79.

FIGURE 156. X-ray image of tibiae with Harris lines in a 20–30-year-old male, No. 88/80.

FIGURE 155. X-ray image of tibiae with Harris lines in a 50-year-old male, No. 82/79.

FIGURE 157. X-ray image of tibiae with Harris lines in a 30-year-old male, No. 99/81.

FIGURE 158. X-ray image of tibiae with Harris lines in a 40–55-year-old female, No. 36/76.

FIGURE 159. X-ray image of tibiae with Harris lines in an 18–25-year-old female, No. 64/78.

FIGURE 160. X-ray image of tibiae with Harris lines in a 50-year-old female, No. 68/78.

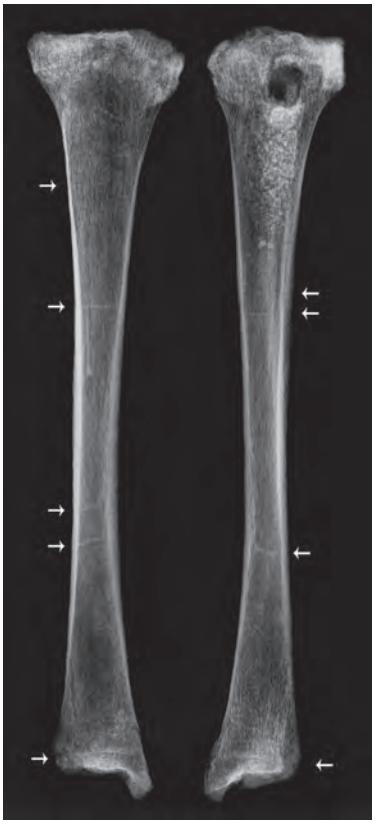


FIGURE 161. X-ray image of tibiae with Harris lines in a 25–35-year-old female, No. 75/79.

DEMOGRAPHY

Metrical evaluation

During the metrical evaluation of skeletal material of the Neolithic population from Vedrovice, 32 cranial dimensions were measured and 18 main cranial indices evaluated. The values of examined cranial indices were calculated as arithmetic means of all individuals. The Neolithic population can be characterised in average as dolichocranic; the value in males is 71.63 and in females 73.02, and the resulting average in the adult population is 72.47 (*Table 1*). From the results follows that the intersexual differences inside the population are quite insignificant in adult individuals, but regarding the low number of data this statement cannot be generalised (Ubelaker 1978).

In our opinion, the most important dimensions are those correlating with stature. However, due to an insufficient degree of preservation of particular skeletons, not all the examined dimensions could be measured in all individuals. The average stature in males reached 165.7 cm, in females 154.7 cm. Maximum stature in males reached 175.8 cm, in females 169.0 cm (*Tables 2, 3*).

Sex and age

The examined series of 110 Neolithic individuals comprised 77 adults and 33 children (*Figure 68*). According to sex determination, the adult individuals included 26 males, 48 females and 3 indeterminable individuals, and they were divided by age as follows: 12 Juvenis (15–19 years), 20 Adultus I (20–29 years), 12 Adultus II (30–39 years), 13 Maturus I (40–49 years), 9 Maturus II (50+ years), 8 unspecified adults and 3 indeterminable individuals.

The representation of children in particular age categories: 5 Infans I (until 5 months), 14 Infans II (5 months to 6 years), 14 Infans III (7–14 years). From the percentage of males (23.7%), females (43.6%), children (30%) and indeterminable individuals (2.7%) follows that the highest portion of the Neolithic population had been represented by females. The ratio of females was generally higher than that of males, most of the adults died at the age of 20–29, and most of the children at the age of Infans II–III.

The examined series of 26 male skeletal remains included 24 adults and 2 juveniles. The representation of males by age: 2 juveniles (15–19 years), 12 adult males (20–35 years), 7 older males (35–50 years), 2 males over 50 years, and 3 unspecified adult males.

The series of 48 females was divided by age as follows: 10 Juvenis (15–19 years), 8 Adultus I (20–29 years), 9 Adultus II (30–39 years), 9 Maturus I (40–49 years), 7 Maturus II (50+ years), and 5 unspecified adult females. According to age, the examined skeletal series comprised 10 juvenile and 38 adult females. The evaluation focused on characteristic features typical of particular age categories, and on possible morphological differences detected.

The examined series of skeletal remains of 33 children was divided by age as follows: 5 newborns Infans I (until 5 months), 14 Infans II (5 months to 6 years), 14 Infans III (7–14 years). With regard to general representation in categories Infans II–III, the number of children was balanced.

CONCLUSIONS

From the Neolithic cemetery at Vedrovice (tracts of land "Široká u lesa" and "Za dvorem") 110 skeletons were obtained in 1963–1988. This skeletal series comprises 48 females, 26 males, 5 newborns, 14 children between 5 months and 6 years of age, 14 older children aged 7–14 years, and 3 unspecified adult individuals (*Figure 68, Appendix*). This compendium, however, cannot be held for exact because at the cemetery also damaged burials were unearthed, and in several cases the discovered skeletal material got lost in the past. The cemetery was most probably investigated in entirety but we must take into consideration that several burials may have slipped the attention, were not captured by the excavation area or stayed only poorly preserved (White 1991). The number of males buried at this cemetery, which is a third lower than that of females, indicates that some of the local males had died outside the settlement, and could not be buried in Vedrovice. Striking, however, is the low number of children burials. At the cemetery investigated, the number of children up to 7 years of age does not correspond to the real situation which must have existed within the local population. The fact that even small foetal skeletons are preserved indicates that the conditions for preservation of even the most gracile remains were very favourable, and the reason for such a low number of children burials consists in other factors, probably in the burial mode. In literature, similar situation has been usually explained by the assumption that gracile children skeletons (particularly those of the smallest children) are not preserved because they have succumbed to corrosion or that they had been buried only shallowly below the ground level and disappeared due to agricultural activities in later periods. Such explanations, however, always remained only possibilities, they had not yet been proved by evidence. Anyway, in Vedrovice neither of both these possibilities can be taken into consideration. The local loess soil is strongly calcareous, and thus even the smallest bones are preserved, such as those with female skeletons 81a/79 and 93a/80. The possibility of disturbing the shallowly buried children remains is doubted by the fact that the whole cemetery is situated nearby a forest, and was never disturbed by any more intensive or deep-going settlement construction, and/or agricultural or other activity. The number of buried individuals detected as well as the overall context can be considered to be well illustrative.

Turning the attention to age at death in both males and females buried, none of the individuals had lived over 60 years. It means that senile individuals were not present in the population, and even the age between 50 and 60 years is to be designated as rare. This category included in

TABLE 1. Anthropological measures and indices in males, females and unspecified adult individuals from Vedrovice.

SKULL		Males		Females		Adults	
Cranial index	**I1(M8/M1)**	71.63	dolichocranic	73.02	dolichocranic	72.47	dolichocranic
Length-height index	**I2(M17/M1)**	76.98	hypsicranic	74.89	orthocranic	75.81	hypsicranic
Breadth-height index	**I3(M17/M8)**	107.98	acrocranic	101.29	acrocranic	104.12	acrocranic
Auricular length-height index	**I4(M20/M1)**	66.12	hypsicranic	68.00	hypsicranic	67.59	hypsicranic
Auricular breadth-height index	**I5(M20/M8)**	89.37	acrocranic	89.14	metriocranic	89.21	metriocranic
Transverse frontal index	**I12(M9/M10)**	84.79		84.27		84.5	
Fronto-parietal index	**I13(M9/M8)**	72.91	eurymetopic	70.61	eurymetopic	71.62	eurymetopic
Foramen magnum index	**I33(M16/M7)**	89.01	broad	86.03	medium	87.27	broad
Facial index	**I38(M47/M45)**	100.74	leptoprosopic	102.61	leptoprosopic	102.04	leptoprosopic
Upper facial index	**I39(M48/M45)**	59.5	leptenic	60.03	hyperleptenic	59.86	leptenic
Malar upper facial index	**I39(1)(M48/M46)**	71.82	chamaeprosopic	67.68	chamaeprosopic	69.42	chamaeprosopic
Orbital index (dx.)	**I42(M52/M51)**	82.29	mesoconchic	87.45	hypsiconchic	85.34	hypsiconchic
Orbital index (sin.)	**I42(M52/M51)**	82.46	mesoconchic	86.42	hypsiconchic	84.8	mesoconchic
Nasal index	**I48(M54/M55)**	49.4	mesorrhine	51.03	chamaerrhine	50.37	mesorrhine
Maxilloalveolar index	**I54(M61/M60)**	102.53	dolichocranic	96.39	dolichocranic	98.43	dolichocranic
Palatal index	**I58(M63/M62)**	74.51	leptostaphyline	75.56	leptostaphyline	75.1	leptostaphyline
Jaw index	**I60(M40/M5)**	92.17	orthognathic	94.81	orthognathic	93.76	orthognathic
Length-breadth mandibular index	**I62(M68/M65)**	80.19	dolichostenomandibular	83.5	dolichostenomandibular	82.55	dolichostenomandibular
POSTCRANIAL SKELETON							
Cross-section index of shaft		84.06	eurybrachyid	77.81	eurybrachyid	80.19	eurybrachyid
Lenght-breadth index		89.95	dolichohieric	115.56	platyhieric	98.49	dolichohieric
Length-thickness index		19.40	medium	18.19	medium	18.73	medium
Pilastric index	**I (F6/F7)**	113.6	medium pilastric	102.11	weakly pilastric	105.65	weakly pilastric
Platymeric index	**I (F10/F9)**	83.00	platymeric	77.73	platymeric	79.85	platymeric
Platycnemic index	**I (Ti9a/Ti8a)**	67.66	mesocnemic	68.68	mesocnemic	68.32	mesocnemic

TABLE 2. Sex and age of examined individuals.

Sex/Age	0–0.5	0.5–6	7–14	15–19	20–29	30–39	40–49	50+	Unspecified	Total
Males				2	12	3	4	2	3	26
Females				10	8	9	9	7	5	48
Children	5	14	14							33
Unspecified									3	3

general two male and three female skeletons from the total number of 77 adult individuals. Calculated average age in males was 34 and in females 24 years (*Table 5*). The values of examined cranial indices proved dolichocrany in both males (71.63) and females (73.02); the average value for the entire dolichocranic population was 72.47 (*Table 1*). The average stature in males was 165.7 cm, and in females 154.7 cm (*Tables 2, 3*).

The anthropological material studied comprised 110 Neolithic individuals from the territory of present-day Moravia (LBK – Linear Pottery culture) who changed over from the hunter-gatherer to agrarian economics. The agricultural way of life and food processing was associated with a whole series of working activities (Mateiciucová 2002). The skeletal remains of almost all individuals exhibited many alterations and distinctive bone structures being the displays of a long-time everyday working activity (Wheeler 1974). The research was aiming an assessment of skeletal morphology and determination of extent of the detected alterations and deformations in the population studied. From the examination of skeletal material resulted a general characteristics focused on the reconstruction of assumed working activities of the Neolithic people.

The transition to agrarian diet affected the state of dentition in the whole population. The consumption of coarse food resulted in considerable dental abrasion, infections and incidence of caries (e.g. six carious teeth in male 10/74). A special type of dental abrasion occurred in relation to working activities performed with the help of stone tools, the beginnings of basketry, knowledge of fabrics or the use of teeth as work tools (Frayer 2004), for example in manufacturing cords (*Figures 95–97*). A special production group was probably forming here concentrated on holding objects in the mouth, which fact testifies to the origin and development of work specialisation.

FIGURE 162. Extremely developed occipital topography in male No. 77/79.

TABLE 3. Stature in males and females from Vedrovice.

Burial No.	Stature	Sex
9/74	162.1	female
10/74	158.5	male
11/74	168.8	male
13/75	148.8	female
14/75	155.1	female
15/75	164.4	male
19/75	166.5	male
21/75	159.7	female
22/75	154.1	female
23/75	163.5	male
36/76	157	female
38/76	144.7	female
42/77	169	female
46/77	164.6	male
48/77	154.9	female
54/78	171.9	male
57/78	165.5	male
59/78	165.8	male
64/78	138.7	female
66/78	159.8	male
68/78	151.3	female
69/78	169	male
70/79	157	female
71/79	163.8	male
72/79	158.5	female
73/79	167.5	male
74/79	150.2	female
75/79	156.7	female
76/79	163.1	male
77/79	166.5	male
79/79	169.3	male
80/79	159.4	female
81a/79	161.4	female
82/79	175.8	male
86/80	143.8	female
88/80	158.3	male
91/80	165	female
93a/80	154.3	female
94/80	147.6	female
97/80	162.1	female
101/81	149.7	female
102/81	158.6	female
1/85	157.9	female
2/85	165.9	male
6/88	149.1	female
9/88	157.5	female
10/89	147.2	female

TABLE 4. Average stature.

Sex	Valid N	Mean	Median	Minimum	Maximum	Std. Dev.
Males	19	165.7	165.8	158.3	175.8	4.22
Females	28	154.7	155.9	138.7	169,0	6.76
Total	47	159.5	159.4	138.7	175.8	7.98

TABLE 5. Average age of the Neolithic population from Vedrovice.

	Children	Males	Females	Total
Average age	5.26	34.35	32.55	23.87
Individuals	33	23	43	99

In the Neolithic population from Vedrovice a very distinct sexual dimorphism could be observed, particularly the males were very robust, the females mostly gracile. A fully extraordinary example of well-developed neck muscles was detected on the skull of a 40–50-year-old male (*Figure 162*) with rough and distinctive topography of cranial occiput. The skull robusticity in males also correlated with the thickness of cranial bones, mainly frontal and occipital (*Figures 69–75*), and with the massiveness of mandibles exhibiting rough surface from the attachments of masticatory muscles. A long-time, repeated and strenuous activity must have inevitably resulted in an increased volume of muscular substance, which could be the explanation for a distinct muscular topography in bones of the upper and lower limbs. Several attachment sites on bones became altered due to some more notable disorders – enthesopathies that formed a different bone relief and a higher number of shape disproportions compared to the common situation, not only in males but also in females. Particular attachment sites on bones can be reliably linked with relevant muscles or a functional group of muscles. Males exhibited a complete absence of deltoid tuberosities, and a shift of physical load below the articular heads (*Figures 78–79*) and onto elbow joints (*Figures 80–86*). Permanent alterations and bone cavities occurred in femurs due to long-time load and strain, for example in male No. 11/74 (*Figure 164*). Displays of physical load could be also observed in knee joints and dilated articular facets in femurs, mainly those of robust males. One of regularly performed working activities in the Neolithic was grain grinding; the examination of skeletal remains did not show clearly whether this work had been a domain only of females or of both sexes. Load-induced alterations in males were concentrated in the thoracic region, and corresponded to loads caused by unilateral movement (*Figure 163*) in the arms (the back-and-forth movement with bended elbow), and in the vertebral column (bending forward and back). Special alterations in finger phalanges were caused by many activities: manufacturing cords, grinding grain, weaving and basketry in females (*Figures 111–115).* In males we can suppose some physically more demanding working activities such as woodworking, construction of dwellings, extraction of loess soil, pottery making, chipping stone tools as well as other long-time work loads (*Figures 87–92).* Setting an evident connection between a particular working activity and any concrete displays and effects of bone alterations would be speculative because of an unclear extent of agricultural and other works. The implementation of pottery in the earliest agricultural society implied important changes with regard to processing and storage of food but also a new subsistence mode. An indispensable factor was also the aesthetical expression associated with the manufacture of pottery, and with changes and alterations of particular vessel forms. Most important, however, was the use of ceramic vessels for cooking the ground grain, with the help of which soft food could be obtained, and this fact was of a crucial social importance. Porridge could also be used as a substitute for milk, which helped to increase fertility because the time span between two deliveries could be thus shortened. This fact also correlates with the high birth rate detected in the females from Vedrovice.

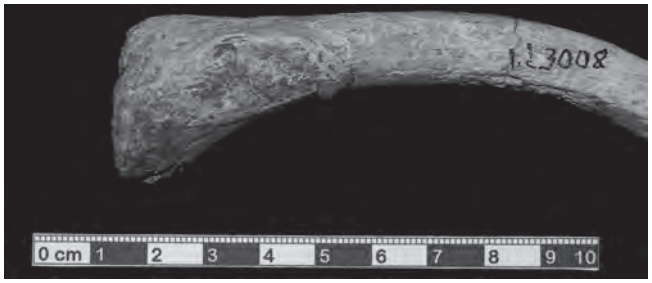


FIGURE 163. *Clavicula* with distinct topography of muscle attachment sites in male No. 77/79.

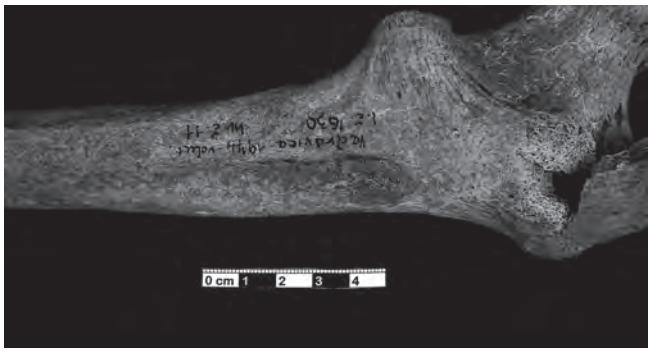


FIGURE 164. The right femur with a cavity at the attachment site of gluteal muscles in male No. 11/74.

FIGURE 165. Burial of an 18-year-old female (No. 9/88) adorned with 10 large beads and pendants at her head, a bracelet, Spondylus shells, 70 shells of freshwater mussels and 200 beads.

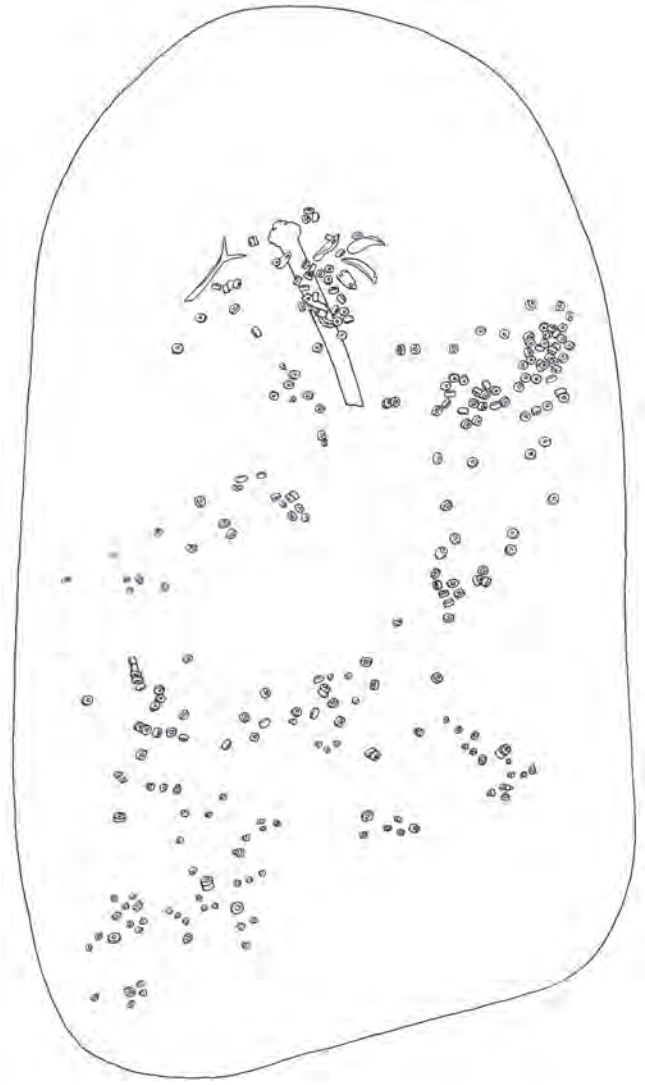


FIGURE 166. The second layer with clustered beads after the removal of female burial No. 9/88.

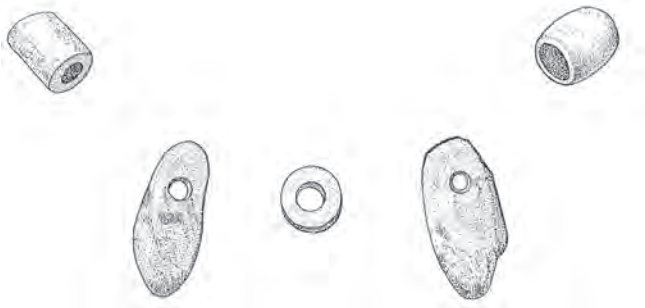


FIGURE 167. Oval pendants and beads resting at the skull of an 18-year-old female, burial No. 9/88.

Unfortunately, pelvic bones with conclusive postpartum attributes were not extant in 19 females. Two females had died during delivery (81a/79, 93a/80), in two females the postpartum alterations were not as conclusive as in 19 females who had delivered, some of them repeatedly (*Figures 119, 120*). Only six females had not delivered. With the increase in fertility, however, the state of health in children became worse – children skeletons exhibit *cribra orbitalia* (*Figures 144–146*), displays of infections, and dental enamel hypoplasia (Jarošová, Dočkalová 2008, Jarošová 2008).

In order to evaluate the state of health in the whole population, an extensive radiologic examination of skeletal material was undertaken – the presence of Harris lines could be detected only in tibiae, in the extant 57 clavicles the X-ray yielded negative results (Hummert, Greven 1985).

Physical activity was also associated with the state of health – the sporadic occurrence of *cribra orbitalia* (Hungen 1971) in three females, two males and three children resulted from nutritional defects, a long-time starvation, iron deficiency or intestinal diseases. The destruction of orbits is closely associated with the presence of Harris lines in tibiae of 4 females (*Figures 160, 161*), 15 males

(*Figures 147–159*) and 9 children (*Figures 144–146*). The reasons of origin are varied – starvation, stress situations or suffered febrile diseases (Lewis, Roberts 1997, Horáčková *et al.* 2004).

The state of health of the Neolithic population was good, mainly in females who had not been exposed to any serious stress or health situations, in contrast to males. The traumas and affections detected were connected with the age at death (arthritis of the vertebral column, Schmorl's nodes) or a genetic disproportion (*Figure 126*). In skeletal remains of the Early Neolithic population displays of agricultural activities could be found in 57 individuals, one male (15/75) exhibited a healed serious injury on his skull (*Figure 137a, b, c*), and in one male a chronic tibial disease (*Figure 139a, b*) was detected.

The burial rite probably reflected the roles in life, the burial mode exhibits sexual differences. Human skeletons at Vedrovice are usually laid to rest in a left-flexed position, with or without funerary equipment (Květina 2004). Red dye occurs regularly in graves of both males and females but only rarely in children graves (Podborský 2002).

Burials are one of the few sources bearing testimony not only to rituals and religious ideas but also to possible social differences. The interpretations of funeral customs during the whole prehistory include a crucial question of what was the reason for changes in burial rite. Most probably it was the influence or arrival of a new group of inhabitants from other regions with different spiritual ideas, which found reflection in parallel conducting of various rituals and burial modes. An important aspect of the discoveries is the investigation of differences in funeral customs, which brings a captivating and often fascinating image of the way of life of our ancestors. To fully unique examples belongs the burial of a young 18-year-old female from Vedrovice (9/88), richly adorned with more than 200 beads that were parts of her costume (*Figure 165*). On the body and around there were scattered shells of freshwater mussels (*Figure 166*), at the waistline rested a Spondylus pendant/clasp, and on the right forearm a Spondylus bracelet. Her head was adorned with a headdress composed of 30 large beads, and aside the head lay oval pendants, probably parts of the headdress (*Figure 167*). The young female was given possessions of the society for her journey into afterlife but it remains unclear which role this female played in her own community.

RESULTS

The presented results of anthropological examination and detected morphological aspects of the Neolithic population from Vedrovice represent the first stage of the research on Neolithic population from Moravia. This work will be followed by the anthropological and morphological research of the Neolithic population from 90 graves at Nitra – Horné Krškany, Slovak Republic (Pavúk 1972). Skeletal material will be evaluated and examined considering the anthropological and morphological aspects already determined. The comparison between these two populations may bring a far more complicated image of biological variability and life in the Neolithic than presently supposed.

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APPENDIX. Inventory of the Neolithic population from Vedrovice – Linear Pottery culture.

No.	Site	Museum Inv. No.	Burial No.	Sex	Age
1.	Široká u lesa	A 1624	1/63	child	6–9 months
2.	Široká u lesa	A 1625	2/63	child	5 yrs
3.	Široká u lesa	A 1633	3/66	child	9 yrs
4.	Široká u lesa	A 1636	4/69	child	8 yrs
5.	Široká u lesa	A 1626	5/71	child	6–7 yrs
6.	Široká u lesa	A 1627	6/72	child	3 yrs
7.	Široká u lesa	A 17533	7/72	child	newborn
8.	Široká u lesa	A 1632	8/74	child	newborn
9.	Široká u lesa	A 1628	9/74	female	50–60 yrs
10.	Široká u lesa	A 1629	10/74	male	40–49 yrs
11.	Široká u lesa	A 1630	11/74	male	45–55 yrs
12.	Široká u lesa	A 1631	12/74	?	adult
13.	Široká u lesa	A 2277	13/75	female	adult
14.	Široká u lesa	A 2278	14/75	female	35–40 yrs
15.	Široká u lesa	A 2279	15/75	male	35–40 yrs
16.	Široká u lesa	A 2280	16/75	child	3–4 yrs
17.	Široká u lesa	A 2281	17/75	child	±1 yr
18.	Široká u lesa	A 2282	18/75	child	6–7 yrs
19.	Široká u lesa	A 2283	19/75	male	25–35 yrs
20.	Široká u lesa	A 2284	20/75	child	3–4 yrs
21.	Široká u lesa	A 2285	21/75	female	30–40 yrs
22.	Široká u lesa	A 2286	22/75	female	35–45 yrs
23.	Široká u lesa	A 2287	23/75	male	17–20 yrs
24.	Široká u lesa	A 2288	24/75	child	5–7 yrs
25.	Široká u lesa	A 2289	25/75	male	adult
26.	Široká u lesa	A 2291	27/76	female	20+ yrs
27.	Široká u lesa	A 2290	28/76	child	4–5 yrs
28.	Široká u lesa	A 2293	29/76	female	18–20 yrs
29.	Široká u lesa	A 2294	30/76	child	10–12 yrs
30.	Široká u lesa	A 2292	31/76	female	adult
31.	Široká u lesa	A 2295	32/76	child	12–14 yrs
32.	Široká u lesa	A 2296	35/76	?	adult
33.	Široká u lesa	A 2297	36/76	female	45–50 yrs
34.	Široká u lesa	A 2298	37/76	child	11–12 yrs
35.	Široká u lesa	A 2302	38/76	female	30–35 yrs
36.	Široká u lesa	A 2299	39/76	child	3–4 yrs
37.	Široká u lesa	A 2300	40/76	child	8–10 yrs
38.	Široká u lesa	A 2301	42/77	female	20–30 yrs
39.	Široká u lesa	A 2304	43/77	child	14 yrs
40.	Široká u lesa	A 2303	44/77	child	10–14 yrs
41.	Široká u lesa	A 2305	45/77	female	35–45 yrs
42.	Široká u lesa	A 2306	46/77	male	20–35 yrs
43.	Široká u lesa	A 2307	48/77	female	18–25 yrs
44.	Široká u lesa	A 2308	50/77	male	adult
45.	Široká u lesa	A 2309	51/77	female	45–55 yrs
46.	Široká u lesa	A 2988	54/78	male	20–25 yrs
47.	Široká u lesa	A 2989	55/78	child	10 yrs
48.	Široká u lesa	A 2990	56/78	child	4–5 yrs
49.	Široká u lesa	A 2991	57/78	male	40–50 yrs
50.	Široká u lesa	A 2992	59/78	male	25–30 yrs
51.	Široká u lesa	A 2993	61/78	female	40–50 yrs
52.	Široká u lesa	A 2994	62/78	female	30–40 yrs
53.	Široká u lesa	A 2995	63/78	male	40–45 yrs
54.	Široká u lesa	A 2996	64/78	female	18–25 yrs
55.	Široká u lesa	A 2997	66/78	male	30–35 yrs
56.	Široká u lesa	A 2998	67/78	female	35–45 yrs

No.	Site	Museum Inv. No.	Burial No.	Sex	Age
57.	Široká u lesa	A 2999	68/78	female	50+ yrs
58.	Široká u lesa	A 3000	69/78	male	20–30 yrs
59.	Široká u lesa	A 3001	70/79	female	45–50 yrs
60.	Široká u lesa	A 3002	71/79	male	35–45 yrs
61.	Široká u lesa	A 3003	72/79	female	30–40 yrs
62.	Široká u lesa	A 3004	73/79	male	20–25 yrs
63.	Široká u lesa	A 3005	74/79	female	50+ yrs
64.	Široká u lesa	A 3006	75/79	female	25–35 yrs
65.	Široká u lesa	A 3007	76/79	male	30–35 yrs
66.	Široká u lesa	A 3008	77/79	male	40–50 yrs
67.	Široká u lesa	A 3009	78/79	child	7–8 yrs
68.	Široká u lesa	A 3010	79/79	male	25–35 yrs
69.	Široká u lesa	A 3011	80/79	female	35–45 yrs
70.	Široká u lesa	A 3012a	81a/79	female	20–30 yrs
71.	Široká u lesa	A 3012b	81b/79	child	newborn
72.	Široká u lesa	A 3013	82/79	male	50+ yrs
73.	Široká u lesa	A 11227–11246	83/80	female	60+ yrs
74.	Široká u lesa	A 11224–11226	84/80	child	9 yrs
75.	Široká u lesa	A 11268–11304	86/80	female	25–30 yrs
76.	Široká u lesa	A 11305–11311	87/80	female	adult
77.	Široká u lesa	A 11312–11343	88/80	male	20–30 yrs
78.	Široká u lesa	A 11344–11353	89/80	female	adult
79.	Široká u lesa	A 11354–11363	90/80	female	adult
80.	Široká u lesa	A 11364–11403	91/80	female	18–20 yrs
81.	Široká u lesa	A 11404–11415	93a/80	female	18–25 yrs
82.	Široká u lesa	A 11416–11438	93b/80	child	newborn
83.	Široká u lesa	A 11439–11469	94/80	female	18–25 yrs
84.	Široká u lesa	A 11470–11471	95/80	male	50–60 yrs
85.	Široká u lesa	A 11472–11489	96/80	child	3–5 yrs
86.	Široká u lesa	A 11490–11524	97/80	female	30–40 yrs
87.	Široká u lesa	A 11525–11541	98/81	?	adult
88.	Široká u lesa	A 11542–11564	99/81	male	30 yrs
89.	Široká u lesa	A 11565–11600	100/81	female	20–30 yrs
90.	Široká u lesa	A 11601–11634	101/81	female	45–55 yrs
91.	Široká u lesa	A 11635–11672	102/81	female	40–45 yrs
92.	Široká u lesa	A 11673–11703	103/81	female	50–60 yrs
93.	Široká u lesa	A 11704–11733	104/81	female	50+ yrs
94.	Široká u lesa	A 11734–11766	105/81	female	16–18 yrs
95.	Široká u lesa	A 11767–11789	106/82	female	16–18 yrs
96.	Široká u lesa	A 11790–11820	107/82	female	18–20 yrs
97.	Široká u lesa	A 17535	108/84	male	adult–senile
98.	Za dvorem	A 18232	1/85	female	20–25 yrs
99.	Za dvorem	A 18233	2/85	male	25–30 yrs
100.	Za dvorem	A 18234	3/86	child	1.5–2 yrs
101.	Za dvorem	A 18007	5/88	child	3 yrs
102.	Za dvorem	A 18008	6/88	female	50+ yrs
103.	Za dvorem	A 18009	7/88	female	35–45 yrs
104.	Za dvorem	A 18010	8/88	child	13–15 yrs
105.	Za dvorem	A 11011	9/88	female	18 yrs
106.	Za dvorem	A 18257	10/89	female	20–25 yrs
107.	Za dvorem	A 22668	12/96	child	4 yrs
108.	Za dvorem	A 22667	11/97	female	50+ yrs
109.	Za dvorem	A 22669	13/97	child	2 yrs
110.	Za dvorem	A 22670	14/97	male	18–20 yrs