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A Medieval Yakut Burial Near Lake Atlasovskoye of the 14th–15th Centuries: An Anthropological Study*

The burial near Lake Atlasovskoye, Yakutia, is one of the earliest Yakut burials, dating back to the 14th or 15th centuries AD and associated with the medieval Kulun-Atakh culture. Initially, its age was assessed by the comparative typological method based on artifacts; and later radiocarbon dates were generated, suggesting that the burial can be attributed to the early stage of the Kulun-Atakh culture. Its highly unusual feature is that the individual was buried in a seated position, an exceptional case in Yakut funerary practice. The cranium was completely wrapped in a bandage sewn from birchbark sheets, under which lethal injuries were found. Our comprehensive study was aimed at assessing the individual's lifestyle and cause of death. Postcranial bones revealed pathological symptoms unusual for an early age (20–25 years) and caused by excessive physical strain, suggesting that the man was either a slave or a warrior. The complex birchbark bandage may indicate high status. Together with the seated position of the body, this makes the military status even more likely. Multiple traumatic lesions inflicted with a cutting weapon indicate the violent nature of conflicts at the early stage of the Yakut culture. Craniometric analysis reveals Buryat and Mongol affinities, supporting evidence from epic literature relating to Yakut origins, in which Buryat or Mongol immigrants had taken part.

Keywords: *Yakuts, Atlasovskoye burial, Kulun-Atakh culture, craniometry, physical type, paleopathology.*

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Introduction

A single male burial was discovered on one occasion by workers in the botanical garden of the Yakutsk State University (now M.K. Ammosov North-Eastern Federal University) by Lake Atlasovskoye near Yakutsk in 2003 (Dyakonov, Afanasiev, 2004) (Fig. 1). Geographical coordinates of the site are 61°57′57.85″ N and 129°37′19.51″ E. The skeletal remains were unearthed by policemen (under control of a forensic scientist), and sent to the city morgue. The workers stated that the skeleton had been found in a seated position, with the skull lying some 15–25 cm below the surface and fully bandaged with birchbark sheets; while the rest of the skeleton was lying much deeper in the ground. The small size of the burial pit (130 cm long), plus the position of some bones of the feet, support a seated posture for the deceased (Fig. 2). The face of the individual was oriented southwards. This is the only case of an ancient burial in a seated position in Yakutia.

Grave-goods were not numerous: a bow with a quiver and arrows, from which were recovered fragments of the wooden core with birch covering; five iron and three bone arrowheads (one fragmented); a bone end-insert for the bow; and an iron ring (Fig. 3). According to a comparative typological analysis of the artifacts, the burial was initially dated to the early Yakut Kulun-Atakh culture of the 14th–16th centuries AD, which was later confirmed by a radiocarbon dating.

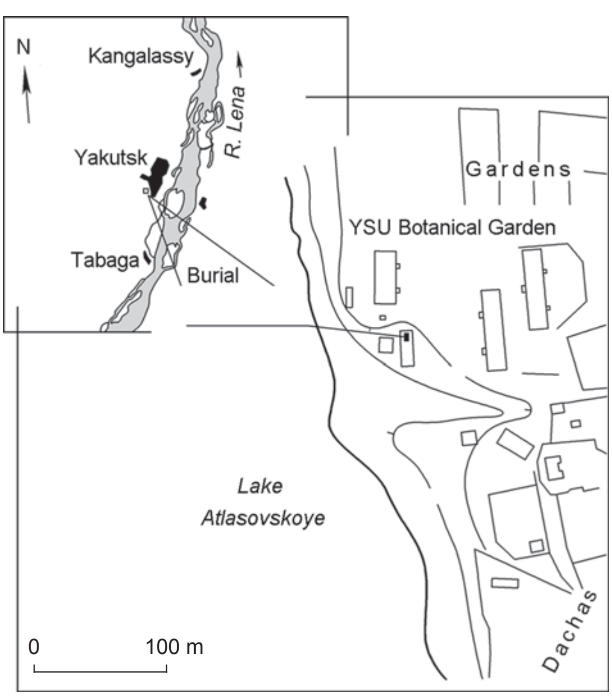

Fig. 1. Location of the burial near Lake Atlasovskoye. Map of the site.

Cultural identification and dating

The iron arrowheads were of the stemmed type. From the typological point of view, one of the arrowheads is an armor-piercing chisel-shaped broadhead with a diagonally twisted shock head (Fig. 3, *1*), another is a lanceolate one with a long neck (Fig. 3, *2*), and three others are broadheads of elongated-trapezoidal shape (Fig. 3, *3–5*). Bone arrowheads are rectangular or square in cross-section, stemmed, with a narrow blade and a flattened haft element (Fig. 3, *7–9*).

The arrowheads find analogs among artifacts typical of the Kulun-Atakh culture of 14th–16th centuries AD, and Yakut culture of 17th–18th centuries AD. The most defining find is the chisel-shaped broadhead, which is typologically identical to arrowheads of the Kulun-Atakh culture from the Kulun-Atakh and Syrdyk-Sulus settlements (Gogolev, 1990: 17, 33, pl. V, *11*; XXII, *3*). Bone and horn end-inserts for bows similar to that from Lake Atlasovskoye are also found among artifacts of the Kulun-Atakh culture, and are an indispensable feature of Yakut bows of 17th–18th centuries. The relatively short length of the end-inserts possibly points to an early date for them.

Three radiocarbon dates were obtained at the AMS Laboratory of the University of Arizona at Tucson, USA: one from a bone of the skeleton, and others from the birchbark bandage on the skull. The first date seems the most reliable, 515 ± 45 BP (AA-86203). The corresponding calibrated date (±2σ) is 1300–1460 AD (22.5% probability, 1300–1360 AD; and 72.9%, 1380–1460 AD)*. The dates obtained from the birchbark bandage do not seem to be fully correct. One of the dates is in our opinion overestimated, 1280 ± 40 BP (AA-103992), after calibration: 650–870 AD (±2σ) and 675–775 AD (±1σ). Using birchbark from a tree rotted down six or eight centuries before making the burial does not look like a very probable scenario. The second date is likely too young, 355 ± 40 BP (AA-104677), after calibration: 1450–1640 AD (±2σ) (95.4 % probability) and 1470–1630 AD (68.2 % probability; ±1σ). Thus, the time span between 1380 and 1460 AD obtained from the bone of the deceased seems to be the most plausible.

Summing up the results of the radiocarbon dating and typological analysis of the grave-goods, the Atlasovskoye burial can be attributed to the early (Kulun-

*The dates were calibrated using OxCal 3.10 software.

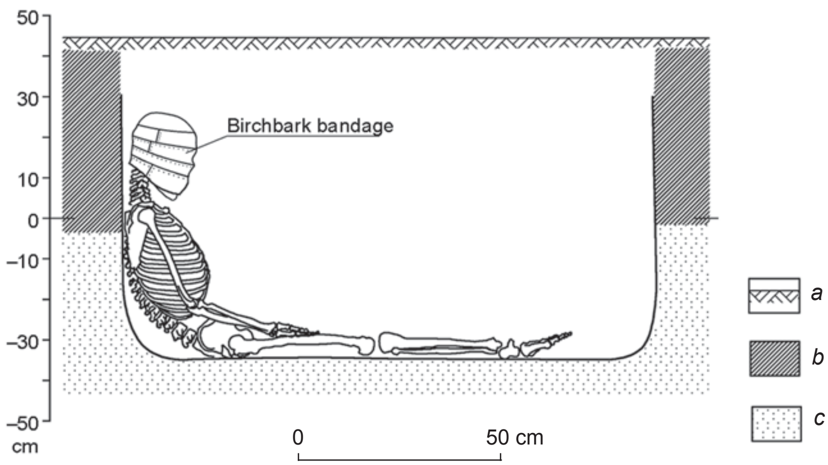

Fig. 2. Profile of the Atlasovskoye burial.
a – sod; *b* – black humus; *c* – sand.

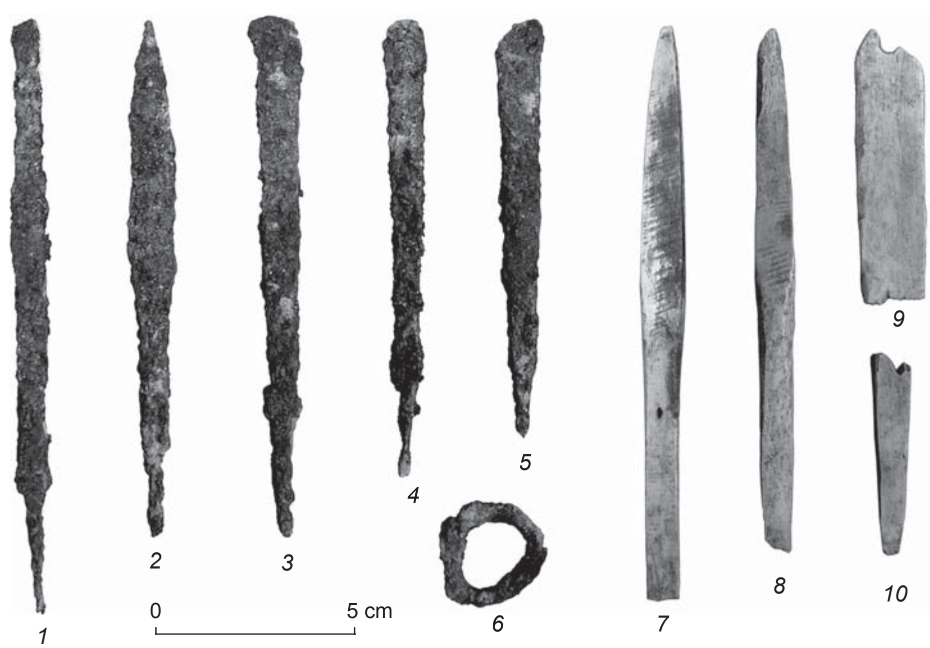

Fig. 3. Grave-goods from the Atlasovskoye burial.
1–5, *7*, *8* – arrowheads; *6* – ring; *9* – fragment of the haft-element of the arrowhead; *10* – end-insert of the bow.
1–6 – iron; *7–10* – bone.

Atakh) stage (14th–15th centuries AD) of the Kulun-Atakh culture in Yakutia (14th–16th centuries AD). Studying the burial opens new avenues to answering questions about ethnogenesis and early history of the Yakuts.

Pattern of the burial

The seated position of the deceased is not typical of the Yakut funerary practice of the 15th–18th centuries; thus that exceptional pattern of burial most probably points towards some intriguing circumstances in the life or death of the individual.

The birchbark bandage is of particular interest. After removal of the bandage, there were numerous unhealed wounds found on the left side of the skull and the mandible, probably inflicted deliberately with a cutting weapon (Fig. 4). The bandage, covering the whole head, was made of narrow strips of very thin birchbark. This find provides important knowledge of wound-healing practice in the Yakuts of the

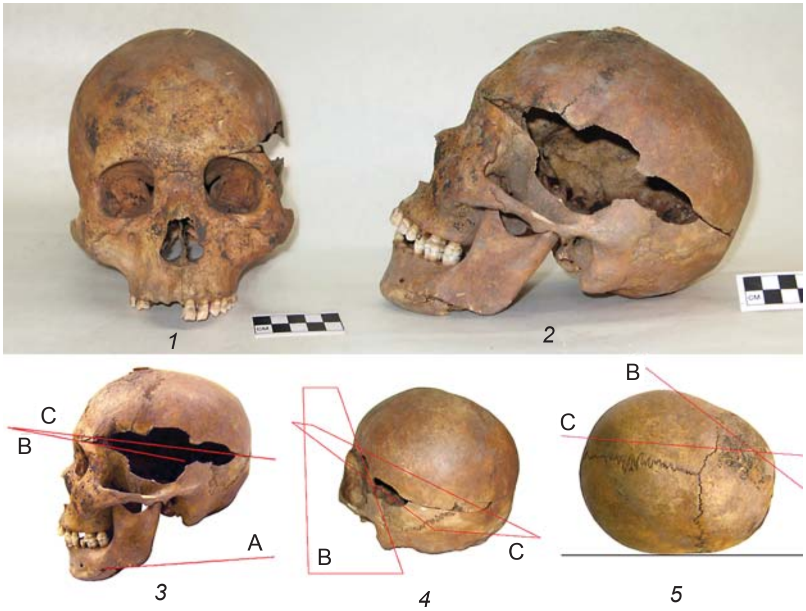

Fig. 4. Traumatic lesions in the skull of the man from the Atlasovskoye burial (*1*, *2*), and lines showing the direction and final position of the cut wounds (*3–5*). A – first blow; B – second blow; C – third blow.

Fig. 5. Anatomical reconstruction of the face of the man from the Atlasovskoye burial.

14th–15th centuries. Such a type of bandaging of head injuries among the Yakuts was mentioned by Y.I. Lindenau in the 18th century (1983: 34).

Deep-green coloration of the epiphyses of the knee joint points to the presence of a copper item near the knees. It is possible that legs of the deceased were bound around the knees by a belt with a copper buckle.

Anthropological description of the skeleton

The remains belong to a man who died between 20 and 25 years of age. The cranial vault is meso-brachycranial and of large height (Table 1). The face is relatively low (meso-leptoprosopic) and wide, particularly between the angles of the mandible, generally orthognathic; but meso- to prognathic according to the index of protrusion and alveolar angle, which points to a certain tendency towards alveolar prognathism. The skull, in the horizontal plane, shows a moderate protrusion at the level of the orbits and a much stronger one at the level of subspinale. The orbits are intermediate in width, but low (Fig. 4, *1*); while nasal height and breadth are both average. The nasal bridge is strongly flattened; notably, it is very wide but very subtly protruded at the level of both simotic breadth and dacryon. The nasal protrusion angle is very small. Both the length and width of the mandible are large.

The nasal protrusion angle, and the modules of facial and nasal bridge protrusion, display values typical of classical Mongoloid craniometric types (Gokhman, 1980) (Table 1). The only thing to point out here is a kind of disharmony in the horizontal facial protrusion: it is much stronger at the level of the orbits. Another interesting feature is observed in shape of the face and the cranial vault: while the index of the facial skeleton's flatness exhibits a level typical of mongoloid craniotypes, the preauricular facio-cerebral index can be considered as an intermediate between Mongoloid and Caucasoid values. But in fact such figures are quite typical of North Eurasian anthropological variants. In general, the relative proportion of Mongoloid element (Debets, 1968) leaves little doubt of the Mongoloid North Asian affinity of the skull. The authors express their deepest gratitude to E.A. Alekseyeva from the Anthropological laboratory of the Institute of Northern Development of Siberian Branch of RAS for making a facial reconstruction of the man from the Atlasovskoye burial (Fig. 5).

The humeral, femoral and tibial lengths are average on a global scale, while length of the clavicle is small (Table 2). Circumferences of the humeral and femoral diaphyses (as well as their thickness

Table 1. **Cranial metrics**

Measurement	Value	Measurement	Value
1. Cranial length	185	72. General facial angle	85
8. Maximum cranial breadth	148	74. Alveolar angle	71
17. Cranial height (basion-bregma)	137	77. Nasomalar angle	144
8 : 1. Cranial index	80.0	∠zm'. Zygomaxillary angle	141
5. Cranial base length	105	Facial protrusion module	142.5
9. Minimum frontal breadth	98	51. Orbital breadth from *mf*	40.5
10. Maximum frontal breadth	126	51a. Orbital breadth from *d*	38.4
9 : 8. Fronto-transversal index	66.2	52. Orbital height	32.2
9 : 10. Frontal index	77.8	52 : 51. Orbital index from *mf*	79.5
32. Forehead profile angle from *n*	83	55. Nasal height	53.8
GM/FH. Forehead profile angle from *g*	74	54. Nasal breadth	25.4
11. Cranial base breadth	136	54 : 55. Nasal index	47.2
12. Occipital breadth	112	75 (1). Nasal protrusion angle	14
40. Basion-prosthion length	103	SC. Simotic chord	9.7
40 : 5. Facial protrusion index	98.1	SS. Simotic subtense	1.6
Cranial shape	Ovoides	SS : SC. Simotic index	16.5
Intercilium (1–6)	4	DC. Dacrial chord	26.1
43. Upper facial height	99	DS. Dacrial subtense	5.6
46. Midfacial breadth	108	DS : DC. Dacrial index	21.5
45. Bizygomatic breadth	141	Nasal bridge flatness module	138.5
45 : 8. Transversal facio-cerebral index	95.3	General flatness module	140.5
9 : 45. Fronto-zygomatic index	69.5	FC. Canine fossa depth	4.3
48. Nasion-alveolar height	75	68 (1). Mandibular length from condyles	112
47. Nasion-gnathion height	126	68. Mandibular length from angles	76
48 : 45. Upper facial index	53.2	65. Mandibular condylar width	125
Facial skeleton flatness index	109.7	66. Mandibular angular width	105
Preauricular facio-cerebral index	93.8	Relative proportion of Mongoloid element (after (Debets, 1968))	118.1

indexes) are small, while the same figures for the tibia are intermediate. The intermembral index is high, and humerofemoral and radiohumeral ones are average; while the tibiofemoral index is very low on the scale of Northern Eurasia, and low on the global scale (Mamonova, 1986; Tikhonov, 1996). The estimated stature of the individual reconstructed—based on the length of the femur and using M. Trotter and G. Gleser's formula for Mongoloids—was 169 cm (Alekseyev, 1966: 238). The body's proportions were dolichomorphic (relatively narrow shoulders) and brachymorphic (relatively shortened legs).

In all parts of the spine are observed degenerative lesions, untypical for such a young age (necrosis dissecans, intervertebral hernia, wedge-shaped deformation of the vertebral bodies), which are particularly strongly pronounced in the cervical and thoracic vertebrae. These pathological lesions formed as a result of excessive compressive loadings on the spine (Rokhlin, 1965: 54–56, 76–79; Reinberg, 1964: vol. 1, pp. 93–94; Ortner, Putschar, 1985: 121–122).

In order to clarify the taxonomical position of the Atlasovskoye individual, we performed a canonical discriminant analysis (CDA) whereby the cranial metrics of the individual were compared with a

Table 2. **Postcranial metrics (right side)**

Measurement	Value	Measurement	Value
Clavicle		Femur	
1. Maximum length	130	2. Natural length	442
6. Circumference	35	8. Midshaft circumference	80
6 : 1	26.9	21. Distal epiphyseal breadth	21
Humerus		8 : 2	18.1
1. Maximum length	326	Tibia	
7. Minimum circumference	57	1. Total length	342
4. Distal epiphyseal breadth	61	3. Proximal epiphyseal breadth	75
7 : 1	18.7	10. Midshaft circumference	72
Ulna		10b. Minimum circumference	67
1. Maximum length	265	10 : 1	21.1
3. Minimum circumference	35	10b : 1	19.6
3 : 2	15	Indexes	
Radius		R1 : H1 – radiohumeral	75.8
1. Maximum length	247	T1 : F2 – tibiofemoral	77.4
3. Minimum circumference	39	H1 : F2 – humerofemoral	73.8
3 : 2	16.5	H1 + R1/F2 + T1 – intermembral	73.1

Table. 3. **Factor loadings in the total of all analyzed samples (male skulls)**

Measurement	Canonical vector	
	I	II
1. Cranial length	0.1389	0.1570
8. Maximum cranial breadth	–0.6192	0.1755
17. Cranial height	0.4079	0.2936
9. Minimum frontal breadth	0.2593	–0.1551
45. Bizygomatic breadth	0.0644	0.2589
48. Nasion-alveolar height	–0.0505	0.5006
55. Nasal height	0.1416	0.0949
54. Nasal breadth	–0.3947	–0.1138
51. Orbital breadth	0.2918	–0.2598
52. Orbital height	0.0816	0.1743
SS. Simotic subtense	–0.1218	–0.1241
DC. Dacrial chord	–0.1540	–0.1800
DS. Dacrial subtense	0.1262	–0.2426
72. General facial angle	–0.0601	–0.0517
75 (1). Nasal protrusion angle	0.0078	0.1948
77. Nasomalar angle	0.1390	0.2859
∠zm'. Zygomaxillary angle	–0.0945	0.4096
Eigenvalue	74.7620	58.2245
Variance explained, %	34.54	26.90

comprehensive set of cranial samples representing Central-Asian (Yakuts; Buryats Transbaikalian, Western and from Tunka; Tuvans; Mongols), Baikalian (Negidals; Yukaghirs; Dolgans; reindeer-breeding Evenks) and Yenisei (Nenets; Kets) populations of the North-Asian formation; Arctic (coastal and reindeer-breeding Chukchi; Eskimo Western, South-Eastern, and from Naukan), and South-Siberian (Kazakhs; Telengits; Kachints) groups; Ob-Irtysh (Selkups; Chulyms; Tobol-Irtysh Tatars); and Uralic (Eastern and Northern Khanty; Northern Mansi) populations of the Western-Siberian formation. The scatter of the groups in morphospace of the canonical vectors I and II (Table 3) convincingly demonstrates the place of the Atlasovskoye individual in the system of anthropological types of Northern Eurasia (Fig. 6). There is no doubt that it belongs to the Central-Asian type of the North-Asian formation. It should not be overlooked that in this case, measurements of an individual skull were being compared with the population-means. But even taking into account the high level of intragroup variation typical of modern humans, the results of the analysis provide for asserting a high level of morphological similarity of the craniofacial morphology of the studied individual to the anthropological type of present day Buryats and Mongols.

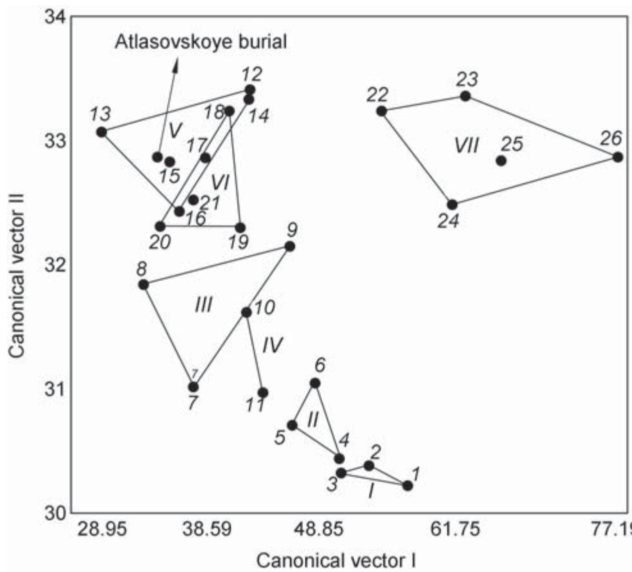

Fig. 6. Scatter of Siberian cranial samples and the individual from the Atlasovskoye burial in morphospace of the canonical vectors I and II.

I – Ob-Irtysh group of populations of the Western-Siberian formation: *1* – Selkups, Tiskino (Bagashev, 2001), *2* – Chulyms, Yasashnaya Gora (Rozov, 1956), *3* – Tobol-Irtysh Tatars (Bagashev, 1993); *II* – Uralic group of populations of the Western-Siberian formation: *4* – Eastern Khanty (Dremov, 1991), *5* – Northern Mansi, *6* – Northern Khanty, Khalas-Pogor (Debets, 1951); *III* – South-Siberian group: *7* – Kazakhs, Begazy (Ismagulov, 1963), *8* – Telengits (Debets, 1951), *9* – Kachints (Alekseyev, 1960); *IV* – Yenisei group of populations of the North-Asian formation: *10* – Nenets (Debets, 1951), *11* – Kets (Gokhman, 1982); *V* – Central-Asian group of populations of the North-Asian formation: *12* – Yakuts (Tomtosova, 1980), *13* – Transbaikalian Buryats, *14* – Western Buryats, *15* – Buryats from Tunka (Debets, 1951), *16* – Tuvans (Alekseyev, 1965), *17* – Mongols (Debets, 1951); *VI* – Baikalian group of populations of the North-Asian formation: *18* – Negidals, *19* – Yukaghirs, *20* – Dolgans, *21* – reindeer-breeding Evenks (Ibid.); *VII* – Arctic group: *22* – coastal Chukchi, *23* – reindeer-breeding Chukchi, *24* – South-Eastern Eskimo, *25* – Eskimo from Naukan (Ibid.), *26* – Western Eskimo (Debets, 1975).

Dental characteristics of the individual

Non-metric dental traits. Examination of the dentition was carried out using the standard protocol for Russian physical anthropology (Zubov, 1968, 2006). The dental pattern observed in the individual from the Atlasovskoye burial includes a moderate shoveling of the maxillary lateral incisors (the medial incisors were not available for examination), a weak development of the lingual cusp in the front maxillary teeth, the size of which gradually increase from the central incisors towards the canines. In the right canine, a slightly expressed vestibular shoveling can be seen. The vestibular cusp in the first maxillary left premolar is substantially larger than the lingual cusp, and a small accessory cusp of the mesial edge can be observed there. Both lingual and vestibular cusps of the maxillary second premolars are approximately of same size. The hypocone of the maxillary first molars is not reduced; the second ones exhibit an initial stage of reduction, grade 4 according to Dahlberg. The metacone of the first molars is also not reduced, while on the second molars there is a slight reduction. There are no accessory cusps in the molars. Enamel extension in the upper second molar can be described as grade 5.

There is no shoveling in the mandibular incisors, but in the canines a slight enlargement (grade 1) of the marginal ridges of the lingual surface can be observed. The mandibular first premolar is weakly differentiated (grade 2), the second shows a complex three-cusped pattern. The lower first molars are five-cusped with "Y" groove pattern. The lower second molars have four cusps with an "X" groove pattern. The distal trigonid crest and the protostylid fossa are reliably observed in both first molars. There are no accessory cusps in these molars; while the presence or absence of the deflecting wrinkle of the metaconid cannot be seen, owing to strong dental attrition.

An interesting feature of the dental pattern of the individual is hypodontia of the maxillary and mandibular third molars. Summing up: the combination of dental traits characteristic of the individual points towards his affinity with the Eastern dental stock.

Paleopathological features. There were a lot of pathological lesions found in the dentition of the individual. Both maxilla and mandible display a systemic disturbance of supply of the periodontal tissues and also dental calculus. On the other hand, caries is apparently absent, which suggests a low proportion of agricultural products in the individual's diet. A slight degree of inclination of the plane of attrition of the permanent molars also indicates a meat-and-dairy diet. There is usually a trend towards a stronger inclination of the molar occlusal surface in agriculturalist populations (Smith, 1984: 54). The degree of attrition (described using the conventional scale of Smith (Ibid.: Fig. 3), which is usually used in dietary reconstructions) is distributed quite unevenly. The average score for the front maxillary teeth is 3.33, for premolars, 2.5, and for molars, 2.5. The same scores for the mandible are as high as 4, 3, and 3.5. Such figures are typical for populations with complex subsistence strategies where dominant cattle-breeding is accompanied by additional food-sources (Machicek, Zubova, 2012: Table 2, 3). It is difficult, though, to infer how typical the observed distribution of the extent of attrition was for the medieval population of Yakutia in general.

The incisors and canines of both jaws, and the lower left first premolar, exhibit systemic linear enamel hypoplasia (LEH). Presence of LEH is conventionally considered an indicator of dietary stresses or acute infections (Groshikov, 1985: 42); but it might as well be a marker of congenital genetic or physiological anomalies interrupting normal calcification process during formation of the crowns of the teeth (Belyakov, 1993). The maxillary teeth display very slightly pronounced grooves in the middle of the crown and above it. In the mandibular incisors, the grooves are observed throughout the crown, while the canines exhibit a deep groove at the level of a third of the crown's height (counting from the neck), and for premolars it is in the middle. According to the formation-schedule for permanent dentition-enamel, it can be inferred that the metabolic disturbances that led to hypoplasia were taking place during a lengthy period, until the individual achieved the age of 4–5 years (dental attrition precludes defining the age when the disturbance began). On the one hand, it is difficult to explain unequivocally the observed pattern by dietary stresses—since, firstly, the hereditary factor should not be overlooked; and, secondly, lactation was usually prolonged in traditional societies, which could have compensated for an insufficiency of adult diet of which not all the components could be properly digested by the children. On the other hand, normal formation of enamel after the above-mentioned age could suggest that breast milk was the main, not the accessory, component of the diet of a grown child. If so, that obviously insufficient quantity of nutrition might have led to hypoplasia.

Some teeth display antemortem enamel fractures. They are found in the maxillary left medial incisor and canine and right first molar, and also in the mandibular left canine and left first premolar. Such a unilateral localization of the fractures suggests a habit or an occupational activity related to chewing hard food items: probably nutshells or small bones.

Physical activity markers and reconstruction of occupation and death

Examination of the markers of physical activity revealed the following results. Lumbar osteochondrosis is most frequently found in individuals practicing hard labor—in particular, when it involves keeping an inclined position of the body, or frequent tilts. Indicators of the costoclavicular ligament's attachment site point to substantial loadings in the form of active motion of the shoulder-girdle with burdens (Tubbs et al., 2009). Strongly developed attachment-sites of the external obturator muscle in the femora can be interpreted as a result of habitually sitting with the knees bent and the legs apart (Razhev, 2009: 274). A substantial development (of "force type") of the Achilles tendon and the plantar aponeurosis sites in the calcaneus suggest a strong but steady loading during bending and unbending in the ankle-joint (owing to absence of the left leg-bones, we can only discuss the right leg here). Examples of such activity might be pushing a heavy object with the torso while thrusting from the ground with the feet; carrying a heavy load; an endurance walk or run on a solid ground (wearing footwear with a thin sole); or, finally, work requiring prolonged standing.

A generalization of the described types of motion provides for reconstruction of a kinematic scheme. The young man was regularly performing activity requiring a high physical loading, accompanied by tilts of the torso. He was continually, and in different ways, moving heavy objects with his arms. Walking was not exhausting, but included regular forceful motions involving the ankle joints. The predominant sitting posture was one with the knees bent and the legs apart.

Such a model can apply to different kinds of occupational activity. The man was a warrior: he was wearing heavy metallic armor and weapons, regularly exercising with a massive weapon—for instance, with a heavy spear or glaive (palma). It is also possible that the young man was a mounted warrior who used a rigid saddle while riding a jerky running horse. He was controlling the horse with his heels. The main weapon was a heavy spear, or palma. But the man was not a regular rider, like nomads; rather, he was only riding occasionally, as witnessed by weak development of the abductor and adductor muscles of the femur. Another possibility might be that the man was mowing using a traditional Yakut scythe, and the movement was accompanied by frequent tilts of the torso and active work of the shoulder-girdle, arms and legs and ankle-joints (Fig. 7). It should be noted, however, that habitual occupational activity requires moderate physical effort, and leads to pathological changes in mature or senior ages through gradual accumulation of lesions. But we are dealing here with a young man; and so such severe pathological manifestations in the skeleton point to excessive and intense loading. It could

Fig. 7. Mowing using a traditional Yakut scythe. Yakutia. Photograph by I.V. Popov, end of the 19th century (from the collection of the Institute for Humanities Research and Indigenous Studies of the North, SB RAS).

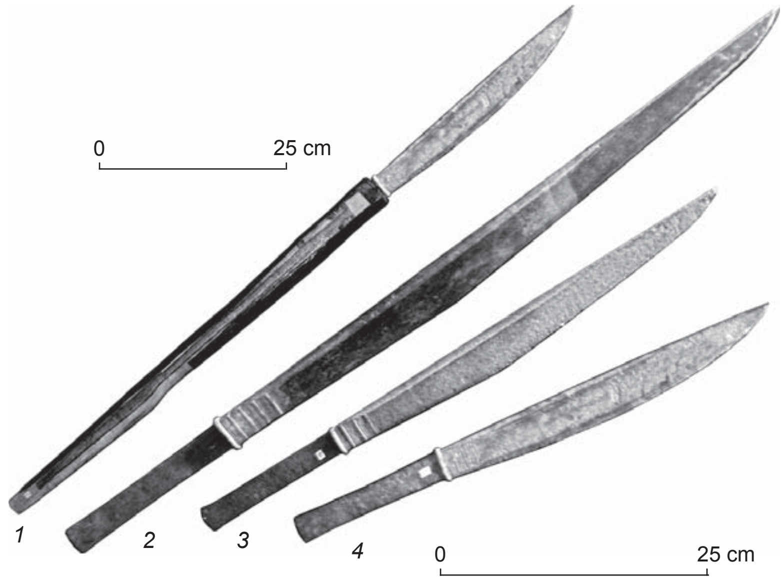

Fig. 8. Batyya (*1*, *4*) and *batas* (*2*, *3*). Yakut culture, 14th–18th centuries (from the collection of the Museum of Anthropology and Ethnography of M.K. Ammosov North-Eastern Federal University).

have been a result of either enforcement (e.g. slavery) or high motivation (e.g. a military career).

The traumatic lesions of the skull can be described as cut-wounds caused by a weapon, with a straight or slightly curved blade more than 17.5 cm in length and a long handle (Sudebnaya meditsina, 1990: 184–186; Mediko-kriminalisticheskaya identifikatsiya…, 2000: 138–159). There were three almost parallel blows to the left side of the head: The first one (A) struck the mandible, while two others—presumably lethally (B, C)—struck the vault (see Fig. 4, *3–5*).

The reconstructed characteristics of the weapon correspond well with the pattern of *batyya* and *batas* (palmas)—types of bladed weapon widespread in Yakutia in medieval times (Vasiliev, 1995: 91–95, table 4). These are pole-weapons with a massive forged blade. The blade of the *batyya* is semicircular, up to 35 cm long (Fig. 8, *1*, *4*); and in *batas*, angular, up to 45–72 cm long (Fig. 8, *2*, *3*).

Despite the great force applied, the skull was not completely cut apart. That means that the head was not rigidly fixed while receiving the blows; thus either the individual was standing, or his head was lying on an elastic or breakable surface (e.g. moss or deep snow). The wounds mostly intersect each other in the posterior part of the skull, suggesting that the individual causing the wounds stayed behind his victim (see Fig. 4, *5*). The injury observed in the left side of the mandible (A) was probably caused first (see Fig. 4, *3*). That blow could have been caused while fighting face-to-face with the man was trying to dodge by moving backwards and turning his head away in the direction of the blow. An alternative explanation might be that the blow came from behind to the neck of a lying or standing man. Since the cervical vertebrae were not affected, and the mandible was only touched by the tip of the weapon, the neck was probably covered with a soft collar, clothes or armor.

Conclusions

The burial near Lake Atlasovskoye is one of the rare Yakut burials of the early stage (14th–15th centuries AD) of the medieval Kulun-Atakh culture (14th–16th centuries AD) and the only known burial in a seated position; this is an exceptional case in the Yakut funerary practice.

The morphological similarity of the skull of the Atlasovskoye individual to modern Buryats and Mongols tentatively confirms legends about the origins of the Yakut people, according to which, Buryat and Mongol immigrants were taking the most active part in their ethnogenesis. Those legends tell that one of the legendary progenitors of the Yakuts—Omogoy Baay—was a Buryat. After leaving the south, he settled in the Tuymaada valley, in Lena basin (Ergis, 1960: 55–73; Predaniya…, 1995: 49, 55). The legends also name another progenitor, Elley Bootur, a Tatar or Buryat, who soon joined Omogoy (Okladnikov, 1955: 341; Ergis, 1960: 73, 77; Predaniya…, 1995: 55; Ksenofontov, 1977: 35).

The great physical strength and pathological conditions apparent in the young man's skeleton, and the pattern of the burial, can most plausibly be interpreted as an evidence of his military status. The seated position of the deceased is probably an indicator of his particular status (military elite? some notable feat of arms?). The fairly complex and carefully made birchbark bandage that was applied after death suggests ritual manipulations or an honorable funeral, which in turn could point to an outstanding position for the deceased, being "a chosen one".

The multiple traumatic lesions to the skull indicate the violent warfare in the time of emergence of the Yakut ethnic culture. Legends about exterminatory wars, called *kyrgys uyete* and still kept in folk memory, might be echoes of those days.

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