



KEYWORDS: *Amur River – Neolithic rock art – Cultural tradition – Russian Far East*

CONTINUITY IN THE ROCK ART TRADITION OF THE SIBERIAN LOWER AMUR BASIN

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Abstract. This paper explores the problem of the correlation of rock art traditions and archaeological cultures of the lower Amur basin (Russian Far East) in the Neolithic period. The aim of the paper is to reconsider established chronology based on recent archaeological findings and advances in rock art data. This researcher's previous paper on this topic only considered face design, but in this article, zoomorphic images are also examined. A recently-discovered pattern of a long-lasting rock art tradition is explained through an anthropological perspective on ethnicity, identity, social practice, symbolism and community.

Introduction

The lower section of the Amur River begins from the city of Khabarovsk and ends at its mouth, and the basin of the lower Amur is a specific cultural region identified as such by archaeological research (Popov 1969; Oklanikov and Derevyanko 1973; Popov 1969).

The rock art of the lower Amur basin is represented by six site complexes (Fig. 1): Sikachi-Alyan, Auri (урочище Май, *urochishche Mai*) and Kalinovka on the banks of the Amur River; and Sheremetyevo, Kiya and Sukpai in the Ussuri basin, a tributary of the Amur River. The major sites are the Sikachi-Alyan complex where about 300 petroglyphs at six sites have been recorded, and Sheremetyevo with about 30 petroglyphs at three sites. The Kiya complex includes 13 images at three sites, and the Kalinovka site consists of a single stone with 15 images (Fig. 2; Okladnikov 1971, 1981a; Laskin 2015a). The sites of Auri and Sukpai were attributed to the Middle Ages

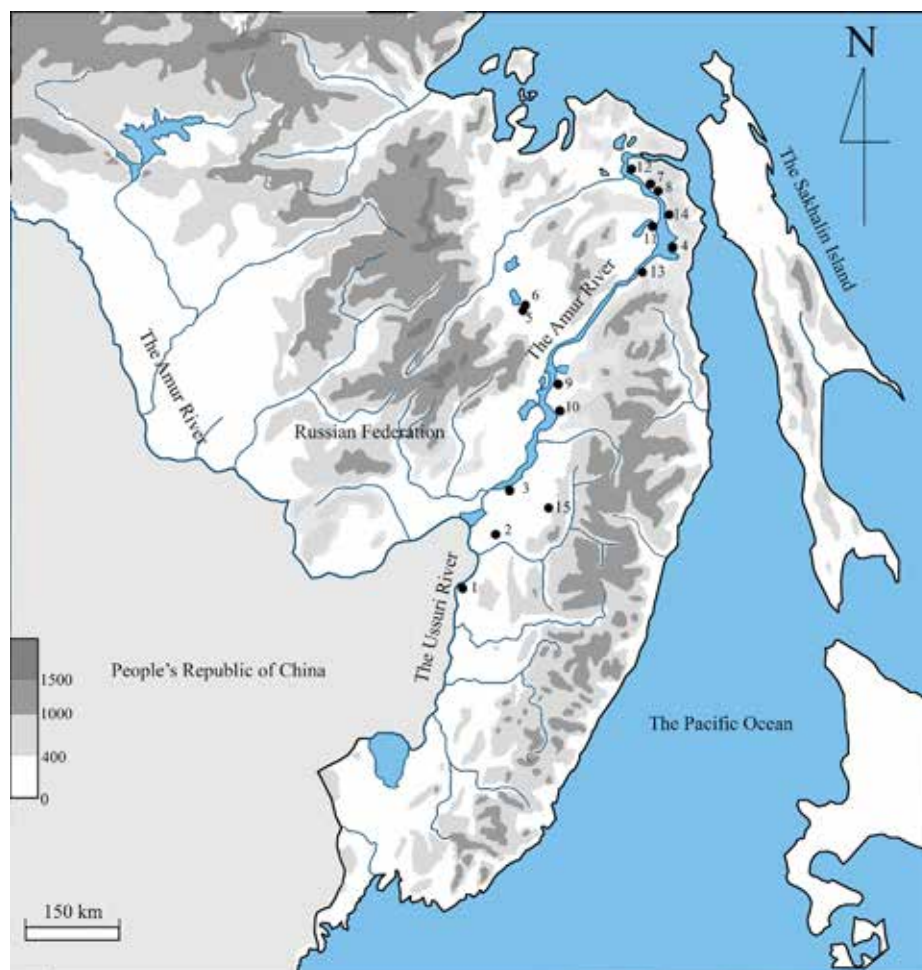


Figure 1. Archaeological sites in the Amur River basin mentioned in the paper: 1 - Sheremetyevo; 2 - Kiya; 3 - Sikachi-Alyan, Malyshevo, Gasya; 4 - Suchu; 5 - Mari-5; 6 - Kondon; 7 - Susanino-4; 8 - Malaya Gavan; 9 - Voznesenskoye; 10 - Innokent'yevka; 11 - Kolchem-3; 12 - Takhta; 13 - Kalinovka; 14 - Auri; 15 - Sukpai.

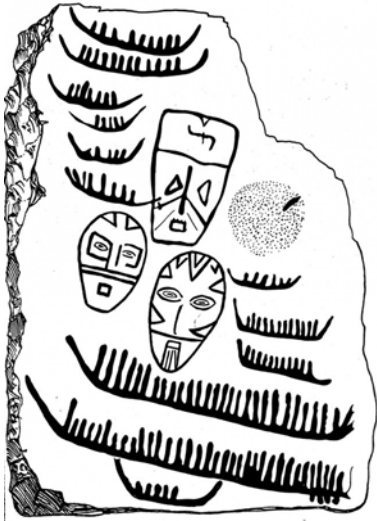


Figure 2. Kalinovka stone. After Okladnikov (1971: Fig. 137).



Figure 3. Vertical surfaces with petroglyphs of the Sheremetyevo complex, site No. 3, general view.

and Iron Age (8–10th centuries CE and the mid-1st millennium BCE – the mid-1st millennium CE respectively) (Okladnikov 1971; D'yakov 1978) and are not considered here.

Four sites of the Sikachi-Alyan are concentrations of separate granite boulders with petroglyphs on them which are scattered along the left bank of the Amur River, and two other sites are petroglyphs on vertical surfaces of rock outcrops. In Sheremetyevo, the petroglyphs are located on vertical surfaces of rock outcrops at two sites (Fig. 3), and the other four sites are locations with petroglyphs found on separate boulders. In Kiya, all the rock art images are present

on vertical surfaces of a single rock outcrop (Fig. 4).

The Amur petroglyphs became known to the public in the late nineteenth century and immediately attracted much scientific attention. In 1898–1899, American researchers Berthold Laufer and Gerard Fowke explored the lower Amur basin and reported visiting the petroglyphs (Laufer 1899; Fowke 1906). Then, the Sikachi-Alyan rock art site was examined by explorer Vladimir K. Arsenyev in 1908, by ethnographer Lev Sternberg in 1910 and by Japanese anthropologist Torii Ryuzo in 1919. Sternberg became interested in the Amur petroglyphs due to intense rock art studies elsewhere in Siberia (Okladnikov 1971).



Figure 4. Petroglyphs of 'masks/faces' on the vertical cliff of the Kiya site.

The first historical interpretation of the major site Sikachi-Alyan was attempted by N. G. Kharlamov, who worked there over a period of a few years and surveyed the site in the late 1920s. He suggested that boulders with images were vestiges of an ancient city and religious centre. Kharlamov called the city 'Gal'bu' and attributed it to a period from the first millennium BCE to the first millennium CE. This view of the site's contents as the vestiges of some architectural structures was then echoed by Soviet ethnographer Alexander M. Zolotaryov, mentioning Sikachi-Alyan in his study of the Ulch people, where he also described the Kalinovka stone. Zolotarev suggested that the latter was a memorial site to mark an expedition by an undetermined ancient people, probably the Bolhae (Okladnikov 1971: 11–12).

In 1935, during Okladnikov's first survey of the Amur River, the Sikachi-Alyan petroglyphs (Fig. 5) were studied and some of them were copied with a stamping method (Miklashevich 2015). Later, in the 1950s–1960s, the sites Sikachi-Alyan, Sheremetyevo,



Figure 5. A zoomorphic figure on one of the boulders of the Sikachi-Alyan complex, site No. 2.





#	Period*	Dates**	Characteristics	Grounds	Images
1	Mesolithic	10000-12000 BP	'Animalistic depictions primitive in technique and style - figures of elks, probably, bulls, and also horses' (Okladnikov 1971: 88). - forest birds, - simple partial faces - skull-like faces	Discovery of the flint figurine of a bird (Fig. 7, 68) in the Mesolithic layer excavated at site I of the Sikachi-Alyan complex. However, the context of this finding is not clear. Stylistically similar petroglyphs of birds in a composition with animalistic figures were located 25-30 m from the exc. pit. - Faces: an assumption that inverted petroglyphs on boulders must have been older than those in a normal position on the same boulder****	See Fig. 7, 51-65, 69 
2	Developed Neolithic or Voznesenovka Culture	3rd millennium - late 4th millennium BCE	Blossoming of mask faces - sculptural mask faces - geometrically ornamented mask faces - waterfowl	Analogous face depictions found on some pottery fragments (Fig. 7, 12, 13)	See Fig. 10 Examples of face masks are not provided 
3	***	2nd millennium BCE	More abstract and more ornamental mask faces and 2 elk figures ornamented with spirals	A logical assumption that styles develop from realistic to abstract	See Fig. 7, 44, 45 Examples of face mask are not provided
4	Mohe period	Late 1st millennium BCE-early 1st millennium CE	Engraved face masks and boats in Kalinovka and Sikachi-Alyan	Engraved with a sharp, possibly metal tool	See Fig. 2 
5	Middle Ages	8-10th centuries CE	Incised zoomorphic figures, horse riders, anthropomorphic figures	Analogous images on Jurchen bronze artefacts	

Table 1. The chronology of the Lower Amur rock art after Okladnikov (1971).

*The periods are given as defined by Okladnikov (1971). **The dates are uncalibrated and follow Okladnikov (1971). For the relevant dates and periods, see the section on chronology and Fig. 7. ***For this group, Okladnikov provided only the approximate age. ****However, as recent studies indicate, the boulders with petroglyphs move considerably every year (Laskin 2014a).

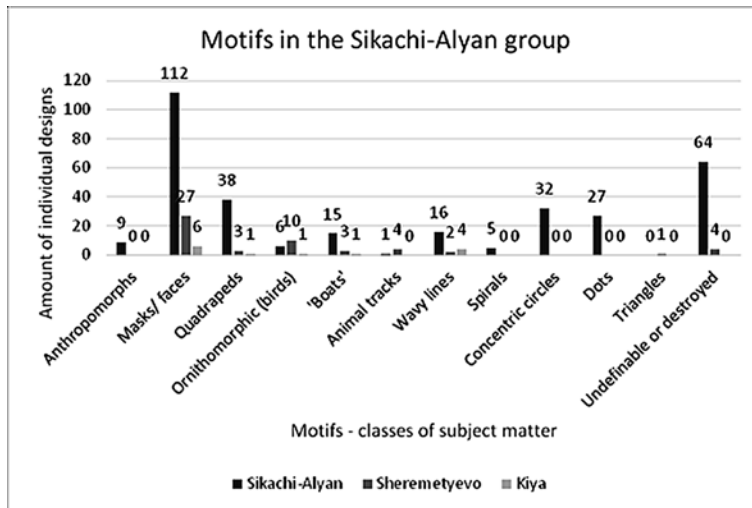


Figure 6. Motifs in the Sikachi-Alyan group.

Kiya and Kalinovka were fully documented and published in a series of articles and monographs (Okladnikov 1959, 1968a, 1968b, 1971; 1977, 1981a, 1981b). Okladnikov established stylistic groups among the petroglyphs and their chronological sequence (see Table 1). He also provided an interpretation of them, drawing on ethnographic data gathered from the Amur peoples. The chronological sequence has not been revised since then and is considered to be reliable (see Shevkomud 2004; Laskin 2015a), although many of Okladnikov's assumptions did not prove to be valid (see Table 1). Many relevant archaeological findings have been made in recent decades, which raises the possibility of revising the petroglyph's presumed ages. Such revision has been attempted previously (Ponomareva 2015) and it has been shown that a major rock art tradition, known as the Sikachi-Alyan group (see below), dated to the Neolithic Age, did not coincide with defined archaeological cultures. The latest advances in the studies of Amur rock art (Devlet and Laskin 2014, 2015; Laskin 2007, 2014a, 2014b, 2015a, 2015b) provide additional and better data, which is also taken into consideration in this study.

The Sikachi-Alyan group: characteristics and chronology

Okladnikov (1971) defined two major groups of Amur rock art: the Sikachi-Alyan group and the Mid-

dle Ages petroglyphs. The Sikachi-Alyan group comprises the majority of the Amur petroglyphs (stages 1–4, see Table 1) from the sites Sikachi-Alyan, Sheremetyevo and Kiya, which were made by percussion and mostly seem to date to the Neolithic Age. This study focuses on this group and does not consider the medieval petroglyphs. Among the Sikachi-Alyan petroglyphs, the prevalent motif is a 'mask/face' (see Fig. 6). According to Okladnikov (1971), the group also includes motifs of 'birds', 'serpents' (spirals and wavy lines), 'boats' and 'elk or deer'.

Zoomorphic depictions

Among the Sikachi-Alyan group there are 42 quadrupeds, 16 ornithomorphic figures that might depict waterfowl and forest birds, four depictions of animal tracks and 27 designs of spirals and wavy lines, which were interpreted by previous researchers as serpent designs (Fig. 6). In 30 of them, the species have been 'determined' (Velizhanin 1985), which has encouraged correlation with climate periods.

Okladnikov defined an archaic group of zoomorphic figures (Table 1, stage 1) which included depictions of quadrupeds in a specific manner characterised by a massive body and a concave back (Fig. 7; 11, 51–65). They were assumed to be depictions of 'elk', 'bulls or bison', 'kulan or tarpan' and 'goral' (Velizhanin 1985). According to A. G. Velizhanin, these are xerophilous, cold-resistant fauna, and their depictions were made when there were steppes in the Amur basin and the water-level was lower. As recent studies indicate (Kuzmin 2005), such conditions could have been present in the preboreal period (10 000–9300 uncal. BP; dates of climate periods are as presented by Kuzmin 2005).



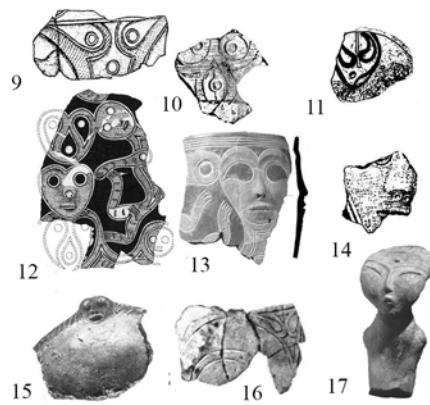
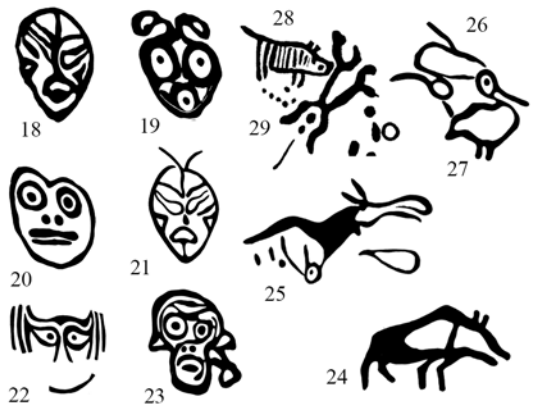
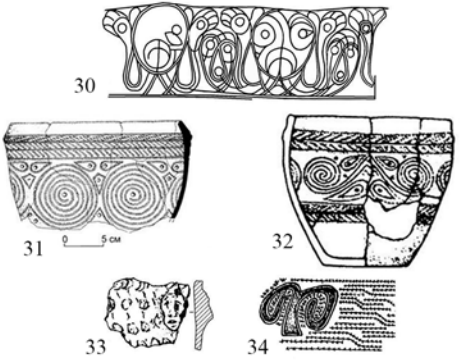
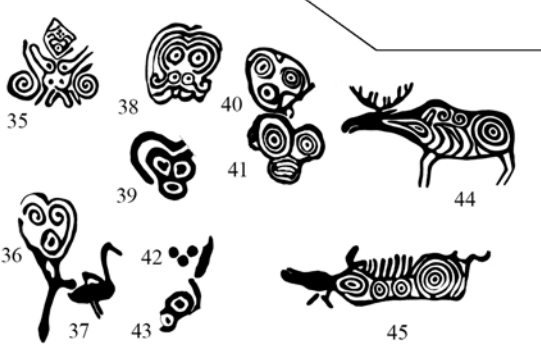
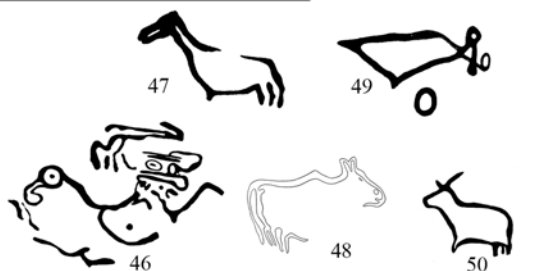
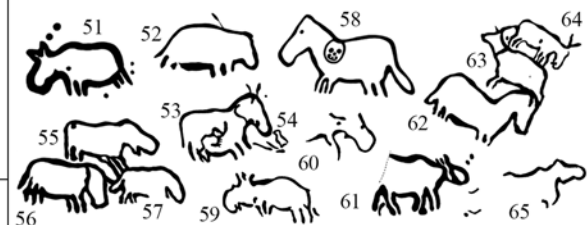
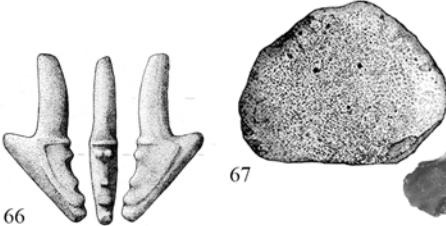
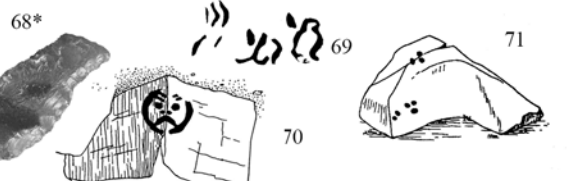
The next group includes thermophilic fauna, such as 'goral' and 'Siberian stags' or 'bulls', and birds, such as 'spoonbills' and 'flamingos' (Fig. 7, 46–50). The birds are indicators of warm and humid climates (Velizhanin 1985). Warming of the climate started in the boreal period and reached its peak at the Holocene climatic optimum (Kuzmin 2005). Thus, this group of

Figure 7 (next page). A tentative attempt to correlate Amur rock art with archaeological cultures and climate periods. Since the dates of climatic periods provided by Kuzmin 2005 are uncalibrated, the dates of the archaeological cultures in this table are also present as uncalibrated and follow Shevkomud and Kuzmin (2009). Animal designations are pareidolic, subjective and untestable (for pareidolia in rock art interpretation see Bednarik (2016).

Portable artefacts: 1 – Innokentyevka (after Konopatskiy 1985); 2 – Kol'chem-3 (after Shevkomud 2004); 9, 10, 15, 16 – Kondom-pochta (after Okladnikov 1984); 11 – Malaya Gavan (after Konopatskiy 1990); 12, 13 – Voznesenovka (after Okladnikov 1981b); 14, 17 – Sikachi-Alyan (after Okladnikov and Medvedev 1981); 30 – Mari-5 (The Khabarovsk Local History Museum); 31, 32, 33, 34 – Suchu (after Filatova 2008); 66, 67 – Goncharka-1 (after Shevkomud and Yanshina 2012); 68 – Sikachi-Alyan (context unclear, after Okladnikov 1981b).

Petroglyphs: 3–5, 36–38 – Sheremetyevo; 6–8, 18, 20–29, 35, 39–65, 69–71 – Sikachi-Alyan; 19 – Kiya (after Okladnikov 1971).

Zoomorphic group: 6, 7, 28 – 'boar'; 8 – 'rat'; 24 – 'Himalayan black bear'; 25, 44, 45, 51, 59, 60, 65 – 'elk'; 26–27 –

	Artefacts from archaeological context	Petroglyphs	
Udylsky stage 4100-3700 BP			
Voznesenovka culture Gorinsky stage 4300-4000 BP			Subboreal 5000-2500 BP
Malyshevo culture 5300-4350 BP			Holocene climatic optimum 8000-5000 BP
?			
Kondon culture 7700-6700 BP	One unpublished pottery sherd with a face design		Boreal 9300-8000 BP
?	?		Preboreal 10,000-9300 BP
Osipovka culture 13,300-10,300 BP			Pleistocene >10,000 BP

'shoveller' (a duck); 46 - 'flamingo'; 47 - 'Siberian stag'; 48, 61 - 'bull or bison'; 49 - 'spoonbill'; 50 - 'goral'; 53, 55-57, 58, 62-64 - 'kulan or tarpan' (after Velizhanin 1985).

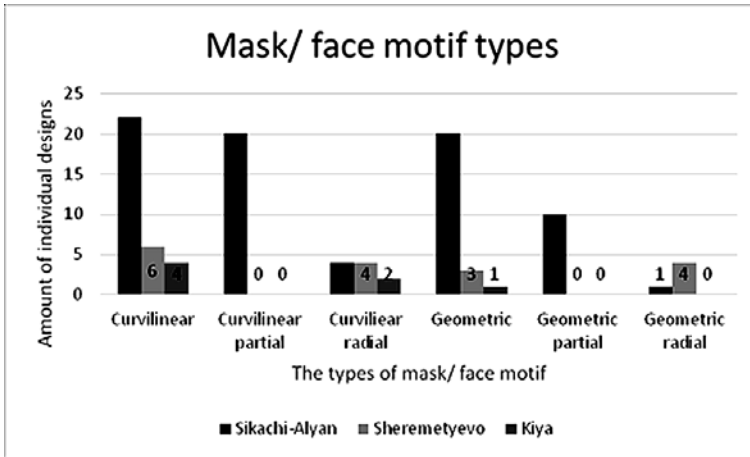


Figure 8. Mask/face motif types.

images may have appeared from 9300–5000 uncal. BP.

The last group pareidolically and subjectively identified includes the modern fauna of the Amur region, such as ‘elks’, ‘rats’, ‘bats’, ‘ducks’, ‘boars’, ‘snakes’ and ‘bears’ (Velizhanin 1985). These images (Fig. 7, 6–8, 24–29, 44–45) could have appeared during the subboreal period (5000–2500 BP) (Kuzmin 2005). Since the presumably depicted fauna is still present in the region, the images theoretically could have been made during the current climate period.

‘Mask/face’ designs

The ‘mask/face’ motif is dominant in Amur rock art, and there are 145 ‘mask/face’ images in total (Figs 6 and 8). They are characterised by striking curvilinear decoration. The ‘eyes’ are often shown as concen-

tric circles, and the inner space of the face was filled with ornamental lines, which repeatedly outline the face contour and the contour of the eyes. However, there is diversity within the ‘mask’ motif group, and the ‘masks’ differ in the shape of the face contour, shape of ‘eyes’ and ‘nose’, and internal and external ornamental elements. Their first typology was elaborated by Okladnikov (1971), although it was not intended to serve an analytic purpose, only as a description of a wide variety of facial designs. This relative typology was based on the shape of the face contour, and eight types were defined: oval, egg-oval, heart-like, trapezoidal, rectangular, with an oval top and straight bottom, monkey or skull-like, and partial. Another typology was proposed by Elena Okladnikova (Okladnikova 1979) in order to compare the rock art of the Amur region with the rock art of the north-west coast of North America. She considered all mask/face designs as skull-like faces and divided them into seven groups depending on the manner of subject depiction. Among them there were heart-like designs and faces with different eyes. This typology succeeded in uncovering common ground in the worldview of Asian and American peoples. However, one cannot be sure that all these face designs depicted skulls, masks and ‘maskoids’, and possibly they are depictions of animal muzzles or something else.

Previously, another typology was elaborated (Ponomareva 2015). This did not draw on any inter-

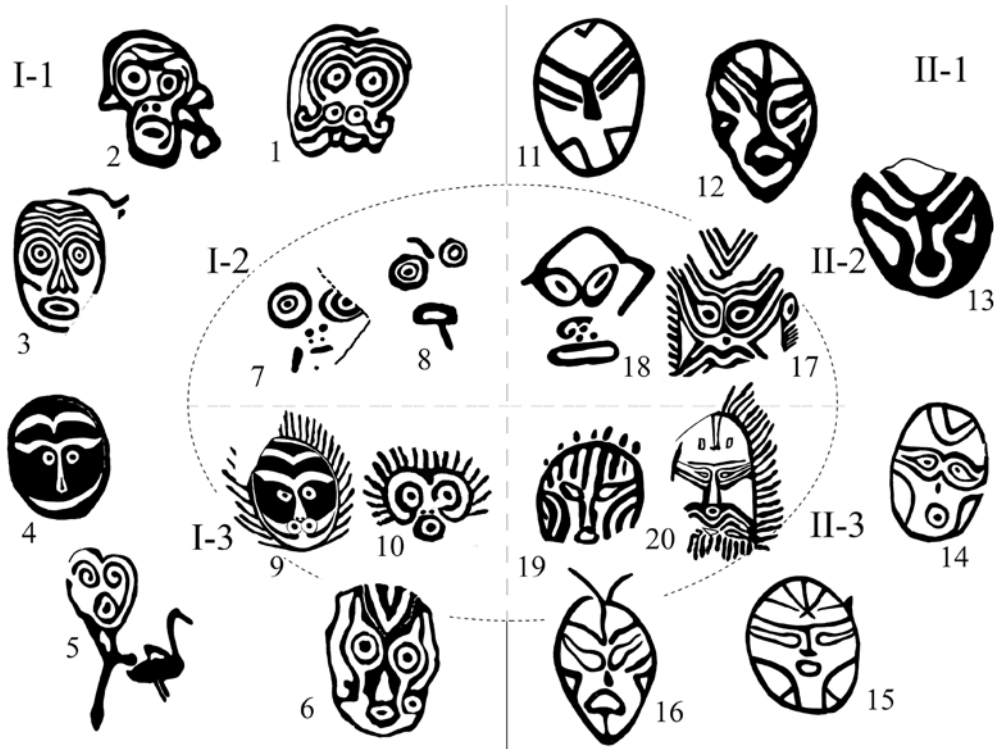


Figure 9. Types of the mask/face design: 2, 3, 7, 8, 11–19 – Sikachi-Alyan; 1, 5, 6, 10, 20 – Sheremetyevo; 4, 9 – Kiya (after Okladnikov 1971).



Figure 10. An anthropomorphic figure on the edge of a boulder. Sikachi-Alyan, site No. 2.

pretive assumptions and was based on the analysis of ornamental elements and their co-occurrence. Here, this typology is further elaborated and it includes petroglyphs which were discovered recently (Devlet and Laskin 2014; Laskin 2007, 2014a, 2014b, 2015a). This typology is intended to uncover consistent patterns in the structure of 'face' designs to compare them with ornaments and 'face' depictions on pottery.

Two main types have been defined in the Amur 'face' designs: curvilinear and geometric (Figs 8 and 9). It has been noted (Ponomareva 2015) that the basis of the face structure is the 'eye' shape. Curvilinear ornaments were mostly found in compositions with round 'eyes', and geometric and angular lines tend to be present along with an elongated 'eye' shape (Fig. 9, I). The elongated eye shape includes such forms as elongated ovals, drop-like, almond-like figures and oblique lines (Fig. 9, II). Curvilinear face designs are ornamented with smooth lines outlining the contour of a 'skull' or a 'face'. The ornamental lines of geometric face designs also outline the contour, but in a more stylised manner with angular triangles and rhomboids. Each type has two subtypes, radial (Figs 9, I-3 and II-3) and partial (Figs 9, I-2 and II-2). Radial face designs have external elements, radial lines, and they are found in both the curvilinear and geometric groups. There are examples of paired face designs where one has radial lines and the other does not. The same situation occurs in the partial subtype, which describes 'face' designs without face contour.

Chronology¹

The chronology of the 'face' design group has been considered previously (Ponomareva 2015), through comparison of the petroglyphs with 'face' depictions found on pottery fragments. Analogous designs on ceramics come from the Malyshevo (middle Neolithic) and Voznesenovka (late Neolithic) archaeological cultural traditions. It is difficult to provide general statistics on such artefacts, since pottery with 'face' depictions is rarely found, with only 22 such items in total at present. In this paper, all available evidence is combined, such as that from portable art, ceramics and the correlation of presumed animal species with climate periods, to establish a preliminary chronological sequence for the Amur rock art tradition (Fig. 7). Unfortunately, no superimposition on rock art surfaces and boulders has been documented.

Initial Neolithic. It is conventionally accepted by Russian researchers that the Neolithic epoch in Siberia and the Far East began with the adoption of pottery. The earliest such evidence is known from the Osipovka culture, which is therefore considered to be from the initial Neolithic. Approximately 70 occupation sites of it are located in the area of the confluence of the Amur and the Ussuri Rivers, and are dated to

¹ The radiocarbon dates of archaeological cultures in this section are provided after Shevkomud and Kuzmin 2009. According to these authors, they were calibrated with Calib Rev 5.0.1. For more details, see Shevkomud and Kuzmin 2009: 8–9. However, in Fig. 7 the dates of the archaeological cultures are given uncalibrated in order to be comparable with climate periods the dates of which are provided by Kuzmin (2005) as uncalibrated.

14 200–9900 cal. BCE (Shevkomud and Kuzmin 2009). A flint figurine of a bird was discovered by Okladnikov at the Sikachi-Alyan site in the layer attributed to the Osipovka culture (Okladnikov 1971) (Fig. 7, 68). Other evidence comes from the Osipovka culture settlement Goncharka-1 (Shevkomud and Yanshina 2012): two pebbles with three small pecked pits which are similar to the simple depiction of a face, where two pits are thought to show the eyes and a third the mouth (Fig. 7, 67). Another pair of artefacts (Fig. 7, 66), so-called 'Y-like items' which are made of basalt and feature anthropomorphous depictions, was unearthed in a burial complex. It is worth remarking that the relief faces were made on the edges of stones. This was noted as a characteristic feature of Amur rock art (Fig. 7, 70), because a considerable number of 'face' petroglyphs was made on the edges of boulders (Okladnikov 1971). Therefore, this evidence indicates that the simple face motif and the specific manner of depicting the motif on the edges of stones or boulders could have emerged as early as the 15th millennium BCE in the art of the Osipovka culture. Two simple face depictions on pebbles have also been unearthed at the site Sheklyaevo-6, in an adjacent region of the Maritime Territory, dated to 13 000–8000 uncal. BP (Garkovik 2014). Interestingly, one of them was accomplished on the edge of a pebble cleavage. The Osipovka culture existed in the transitional period between the Palaeolithic and Neolithic Ages, and is considered the basis of the Neolithic cultures of the Amur region; many cultural features of the following epochs originated from this cultural complex (Shevkomud 2004; Shevkomud and Yanshina 2012).

Early Neolithic period. The region may have been occupied by the Mariinskaya culture, dated to 7750–5800 cal. BCE (Shevkomud and Kuzmin 2009). However, since its cultural complex, which consisted of specific lithic artefacts and ceramic vessels, is present at only one site (Suchu Island), was found in a disturbed position, and its ceramics have common features with those of the Kondon and Osipovka cultures, the validity of the Mariinskaya culture has been debated (Shevkomud and Yanshina 2012). Therefore, this culture is not included in Figure 7.

The middle Neolithic includes the Kondon (early stage) and the Malyshevo (late stage) archaeological cultures. The epoch is characterised by imprinted pottery ornaments which have analogies in the cultural complexes of the Maritime Territory and Manchuria. The Kondon culture is represented by approximately 35 sites in the area of the middle and lower basins of the Amur River and the lower reaches of the Ussuri River. The early stage of the Kondon culture was dated to 6590–5620 cal. BCE, and the late stage to 5310–5070 cal. BCE (Shevkomud and Kuzmin 2009).

Only zoomorphic depictions have been attributed to this time, based on species determination and correlation with climate periods (Fig. 7, 46–65). However, these petroglyphs could have been created during the

time of the subsequent Malyshevo culture which also existed during the Holocene climatic optimum. Possibly, the tradition of face design continued during the early Neolithic into the middle Neolithic, and there is some evidence to suggest this. One of the zoomorphic figures which is related to the Pre-Boreal has a face design depicted on its body (Fig. 7, 58). Another indication is a pottery fragment with a face design which was discovered in 2007 in the context of the Kondon culture (at Knyaze-Volkonskoye-1), although this has not yet been published (O. V. Yanshina, pers. comm.).

The other middle Neolithic culture, Malyshevo, is represented by 30 occupation sites in the lower Amur basin. The early radiocarbon dates have been debated and it was suggested that the culture occupied the period 4260–2900 cal. BCE (Shevkomud and Kuzmin 2009). The Malyshevo pottery is characterised by striking curvilinear ornaments, imprinted compositions and the coloration of the surface with red paint. Anthropomorphous ceramic figures were also found (Filatova 2008; Shevkomud and Kuzmin 2009; Medvedev and Filatova 2014). There are five examples showing an ornamental band formed by two alternating 'face' designs, and in most of them the alternation of two types of 'face' designs, geometric and curvilinear, is present (Fig. 7, 30, 31, 32; see also Medvedev and Filatova 2014: 52). Thus, both these types of rock art depictions could have existed in the Malyshevo period and, moreover, it seems that the more decorative designs, such as those ornamented with multi-line spirals and concentric circles, should be attributed to this period.

The Late Neolithic was represented by the Voznesenovka culture in the Amur basin, and its development proceeded in three stages (Shevkomud 2004; Shevkomud and Kuzmin 2009). The early stage, Gorinsky, dates to 3000–2600 cal. BCE (Shevkomud and Kuzmin 2009) and is closely related to the Malyshevo culture. The pottery has many similar features such as comb and 'gearwheel' imprints, with various parts of the vessel being painted, rims decorated with straight and wavy rolls, designs based on meanders, spirals, 'masks' and concentric compositions (Filatova 2008; Medvedev and Filatova 2014). However, the difference can be seen in the face designs present on the pottery, which look more realistic (Medvedev and Filatova 2014). In Malyshevo, they were incorporated in the ornamental bands, thus engaging with the enclosed surface of a ceramic vessel. In Voznesenovka, the face designs are central figures in the compositional structure (Fig. 7, 12, 13). The 'face' composition, rather than being built by repetitious curvilinear lines, represents complete images which find direct analogies among the Amur petroglyphs (e.g. Fig. 7, 18–23).

The next stage, Udyl'sky, is dated to 2600–2200 cal. BCE (Shevkomud and Kuzmin 2009), and the indication of an alien ceramic tradition, possibly originating on Sakhalin Island, has been noted (Shevkomud

2004). Most of the ceramic fragments with 'face' depictions have been found in the context of the early, Gorinsky, stage. However, two fragments have been found in the context of the middle, Udył'sky, stage (Fig. 7, 1, 2).

The late, Malogavansky, stage, which is dated to 2200–1700 cal. BCE (Shevkomud and Kuzmin 2009), although continuing the Voznesenovka tradition, is marked by completely different ceramics (Shevkomud 2004). No face depiction has been found in this complex or the next. The final Neolithic was occupied by the Koppinskaya culture, dated to 1700–900 cal. BCE (Shevkomud and Kuzmin 2009); however, this transitional time between the Neolithic and the 'Palaeometal'² has not been sufficiently studied.

Although there is no evidence to attribute petroglyphs to the second millennium BCE, some zoomorphic figures depicting modern fauna such as 'elk', 'boar', 'Himalayan black bear' and 'rat' could have appeared in the subboreal period, based on Velizhanin's interpretations (Velizhanin 1985) (Fig. 7, 6–8, 24–29, 44–45). The presence of the Kalinovka stone – on which the face designs together with numerous 'boats' were according to Okladnikov (1971, 1981a) engraved with a sharp, possibly metal, tool (he therefore dated the Kalinovka petroglyphs to the Palaeometal Age) – may indicate that the tradition of the 'face' motif did not cease with the appearance of migrants from Sakhalin Island. However, the stone has not been located since Okladnikov's work in 1968 (Okladnikov 1981a) and no good photograph of it is available. Further, remnants of the rich Neolithic rock art tradition can be seen in traditional ornaments of the Amur peoples today (Okladnikov 1959).

Continuity: 'structuring structures'

It appears that the Amur rock art provides an example of a very long-lived rock art tradition in which the 'mask/face' motif dominated during the Neolithic epoch. This tradition is present in three sites of which Sikachi-Alyan is the major one. This unique pattern can be explained through an anthropological perspective on ethnicity, identity, social practice, symbolism and community.

Ethnicity is a very elusive and much debated phenomenon, and possibly this is not the case with the Amur Neolithic rock art. However, ethnicity is about realising one's own cultural distinctiveness,

and maintaining and signalling it in intercultural communication. This has been a ubiquitous situation throughout human history. For many anthropologists, ethnicity is a phenomenon which can emerge only in the processes of social relationships where the cultural distinctiveness of participants makes a difference in regular interaction (Eriksen 2010: 16–17; Jenkins 1997: 13). As Barth argues, cultural variation may be a result, rather than the cause, of ethnic boundary maintenance (Barth 1969: 12). Although interethnic relations suggest opposition and contrast, such interaction implies both differences and similarities (Jenkins 1997: 13), because there must be 'a shared field for interethnic discourse and interaction' in order for communication to take place (Eriksen 2010: 33–34). The rock art sites could serve as such 'shared fields' where communication between communities could occur, and some artistic elements could appear due to the influence of communication with other cultures. At some sites, another middle Neolithic complex has been identified, which was related to the Bel'kach culture present in Yakutia during 5200–4100 cal. BCE (Shevkomud and Kuzmin 2009). This complex represents the migration from the northern part of the Amur region or even from the Aldan-Lena basin. Although the role of the Bel'kach cultural complex in the genesis of the Amur cultures is not sufficiently understood, some zoomorphic depictions could have been created due to the impact from Yakutia, where they dominated Neolithic rock art imagery. In the middle and late Neolithic, the cultures of the Amur basin actively interacted with the cultures of Manchuria and the Maritime Territory, which allows distinguishing two contact zones, south-western and north-eastern, in the lower Amur basin (Medvedev and Filatova 2014). Therefore, even though it is too straightforward to claim the emergence of ethnicity in the Amur region in the Neolithic, the presence of such a complex multi-cultural situation suggests the existence of ethno-cultural identities in terms of understanding one's own cultural distinctiveness and maintaining it through active strategic usage of rock art.

Since there are only three Neolithic rock art site complexes in the Amur basin, and Sikachi-Alyan is the major one, it seems that this was a very powerful place which could serve as an aggregation site for the communities of the region over a long period. There were changes in style through the Neolithic epoch, but the main idea which crosscuts all Neolithic periods was the idea of the 'face' motif. It is impossible to uncover the real meaning of the motif, but at least it is possible to suggest its importance and symbolic value. The motif could have played the role of a meaningful repository, and even though this meaning could have changed from generation to generation, the repository was an ideological source for maintaining the connection of communities with the past and with the land. Thus, Sikachi-Alyan, as well

² The term was introduced by V. A. Gorodtsov (1927), and it is accepted in many parts of Russia to refer to Eneolithic and Bronze Ages when it is difficult to distinguish between them. In the Amur region, the appearance of bronze artefacts is synchronous to the appearance of iron artefacts and dated to 11–10 centuries BCE. These are rare findings which do not allow researchers to reconstruct the development of metallurgy. Therefore, in the Amur region, the term 'Palaeometal' serves to render peculiarities of the regional cultural development and refers to both Bronze and Iron Ages (Arutyunov et al. 1982; Yanshina 2013).

as other sites, could create and maintain the symbolic boundaries of the Amur basin community.

The relationship between boundaries and symbolism was examined by British anthropologist Anthony P. Cohen (1985), who argued that the symbolic aspect of a community boundary is what it means to people (Cohen 1985: 12). Cohen considered community as a mental construct: '[the] reality of community lies in its members' perception of the vitality of its culture. People construct community symbolically, making it a resource and repository of meaning, and a referent of their identity' (Cohen 1985: 118). Boundaries similarly exist in people's minds, and Cohen emphasises the meaning attached to boundaries and community rather than their structural forms. In examples exhibiting continuity of form and substantial change of content, he shows how structures may be similar but conceal different realities (Cohen 1985: 98). Unfortunately, in the Amur rock art only persistent structures can be observed, and it is impossible to unravel the changing meanings. However, it is possible to suggest the symbolic value of rock art sites since they might be the places religious life was focused on and where rituals were carried out.

One of the prominent symbolic devices is ritual because it gives experience of commonality, and thus is effective in boundary maintenance, creating a sense of commonality and difference from others. Ritual occasions are themselves symbolic. Cohen distinguished two levels on which rituals communicate: first, they communicate about the relation of the group to others, and, second, about the individual's relation to his group and to the world, so that 'both construct and allow the individual to experience social boundary' (Cohen 1985: 53-54). It was suggested that in the Amur basin at least four cult centres existed in the Neolithic, based on excavations of the settlements Gasya (near Sikachi-Alyan), Voznesenskoye, Suchu and Tachta (Medvedev 2005). The main indications of the non-utilitarian purpose of some sections of the settlements were concentrations of ceramic and stone portable 'art' objects, adornments and high-quality and richly decorated pottery interpreted as having been made for use in ritual. All four cult centres were related to the Malyshevo and Voznesenovka cultural layers, although it has been suggested that the creation of sanctuaries could have started in the Osipovka period in Sikachi-Alyan, which is also the major rock art site in the area. Other rock art sites such as Sheremetyevo, Kiya and the place where the Kalinovka stone was found, could potentially also have functioned as cult centres, and future archaeological investigation should test this (Medvedev 2005). The ceremonial role of the 'face' motif might be exemplified by an interpretation of their emphatic 'eyes' as expressing the condition of narcotic intoxication. Such practices have been described among Far Eastern peoples by ethnographers (Tabarev 2012).

The relationships between the communities and

the rock art sites were reciprocal. The sites as the containers of meaning helped to create and maintain social identities and at the same time were exposed to change and alien influence. As an example, the changes are seen in the rock art attributed to different periods of the Neolithic. In the initial Neolithic, it was simple 'faces' and, possibly, some zoomorphic figures. The early Neolithic period was dominated by zoomorphic imagery. The middle Neolithic saw a blossoming of ornamentalism, and the late Neolithic brought more realistic images. Thus, there was change and continuity at the same time. It seems that the rock art site in terms of its function can be compared with the *habitus*, the concept of which was developed by Bourdieu in his theory of practice (Bourdieu 1977). The idea that the *habitus* structures and simultaneously is structured by practice can be applied to the understanding of the role rock art sites played in people's social practice. The *habitus* dispositions draw limits of possible alternatives in making choices, being at the same time in permanent flux and changing, and this is what is seen in rock art stylistic development. Even though there is change, the choices are made from a limited number of possibilities. Even though the face designs are very diverse, there are very clear patterns in their structuring. Material culture is repeatedly used to manifest ethnicity, and the choice of particular forms or styles is restricted by the structural dispositions of the *habitus* (Jones 1997: 120).

Conclusion

The Amur Neolithic rock art traditions are represented by three sites, of which one, Sikachi-Alyan, due to the number and diversity of petroglyphs, can be considered the major site. The Sikachi-Alyan petroglyphs group is dominated by the 'face' motif, although it also includes numerous zoomorphic depictions. The evidence presented here indicates that the Sikachi-Alyan group occupied a vast period of more than ten thousand years, and some characteristic features for every stage can be tentatively determined.

The rock art that might be related to the Osipovka period could include some simple designs of 'faces' and 'birds'. A quite homogeneous zoomorphic group was apparently related to the early Neolithic, although the 'face design tradition' continued to be present. In the middle Neolithic, the growth of ornamentalism occurred, which was expressed in both ceramics and rock art. This tendency continued in the early stage of the Voznesenovka culture, although the 'face' designs tended to be less ornamental. There is no stylistically distinctive zoomorphic group which can be related to a particular period. Only two elk figures stand out due to their decoration with spirals (Fig. 7: 44, 45), and because of this they may be related to the Malyshevo period. Possibly, the rock art tradition did not cease in the late and final Neolithic, even

though there is no evidence to support this suggestion apart from the Kalinovka stone. The rich ornamental tradition survived over a ten-thousand-year history and the remnants can be observed in the decoration of arts and crafts of modern Amur peoples. This attempt to create a chronological model for the Amur petroglyphs is only tentative and provisional, based as it is on several uncertainties. However, it is fully testable and thus scientific, and will no doubt be tested by scientific age estimation work in the future.

Anthropological perspectives on the longevity and persistence of the Amur rock art tradition has given some hints for understanding the role which rock art sites played in pre-Historic societies. The area of the lower Amur basin was a territory where processes of intercultural communication occurred which could have caused the emergence of ethno-cultural identities, and where the rock art sites could have served as 'a shared field of discourse and interaction' between communities. Numerous similar designs indicate the repetition of artistic events, which could be evidence of ritualistic practice. Therefore, the sites, and especially the 'face' motifs, could have been used as symbolic devices in building communities and establishing and maintaining their boundaries, even though the meaning attached to the place and to the art changed over time. The stylistic development could be an indication of this change. The rock art sites as powerful and meaningful places, and the art as the expression of cultural distinctiveness, were structured by social practice, and at the same time, structured social identities.

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