LES SÉANCES DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE

Les Séances de la Société préhistorique française sont organisées deux à trois fois par an. D'une durée d'une ou deux journées, elles portent sur des thèmes variés : bilans régionaux ou nationaux sur les découvertes et travaux récents ou synthèses sur une problématique en cours dans un secteur de recherche ou une période en particulier.

La Société préhistorique française considère qu'il est de l'intérêt général de permettre un large accès aux articles et ouvrages scientifiques sans en compromettre la qualité ni la liberté académique. La SPF est une association à but non lucratif régie par la loi de 1901 et reconnue d'utilité publique, dont l'un des buts, définis dans ses statuts, est de faciliter la publication des travaux de ses membres. Elle ne cherche pas le profit par une activité commerciale mais doit recevoir une rémunération pour compenser ses coûts de gestion et les coûts de fabrication et de diffusion de ses publications.

Conformémeént à ces principes, la Société préhistorique française a décidé de proposer les actes des Séances en téléchargement gratuit sous forme de fichiers au format PDF interactif. Bien qu'en libre accès, ces publications disposent d'un ISBN et font l'objet d'une évaluation scientifique au même titre que nos publication papier périodiques et non périodiques. Par ailleurs, même en ligne, ces publications ont un coût (secrétariat d'édition, mise en page, mise en ligne, gestion du site internet) : vous pouvez aider la SPF à poursuivre ces activités de diffusion scientifique en adhérent à l'association et en vous abonnant au *Bulletin de la Société préhistorique française* (voir au dos ou sur **http://www.prehistoire.org/form/515/736/formulaire-adhesion-et-ou-abonnement-spf-2014.html**).

LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE

La Société préhistorique française, fondée en 1904, est une des plus anciennes sociétés d'archéologie. Reconnue d'utilité publique en 1910, elle a obtenu le grand prix de l'Archéologie en 1982. Elle compte actuellement plus de mille membres, et près de cinq cents bibliothèques, universités ou associations sont, en France et dans le monde, abonnées au *Bulletin de la Société préhistorique française*.

Tous les membres de la Société préhistorique française peuvent participer :

– aux séances scientifiques de la Société – Plusieurs séances ont lieu chaque année, en France ou dans les pays limitrophes. Le programme annuel est annoncé dans le premier *Bulletin* et rappelé régulièrement. Ces réunions portent sur des thèmes variés : bilans régionaux ou nationaux sur les découvertes et travaux récents ou synthèses sur une problématique en cours dans un secteur de recherche ou une période en particulier ;

– aux Congrès préhistoriques de France – Ils se déroulent régulièrement depuis la création de la Société, actuellement tous les quatre ans environ. Leurs actes sont publiés par la Société préhistorique française. Depuis 1984, les congrès se tiennent sur des thèmes particuliers ;

– à l'assemblée générale annuelle – L'assemblée générale se réunit en début d'année, en région parisienne, et s'accompagne toujours d'une réunion scientifique. Elle permet au conseil d'administration de rendre compte de la gestion de la Société devant ses membres et à ceux-ci de l'interpeller directement. Le renouvellement partiel du conseil se fait à cette occasion.

Les membres de la Société préhistorique française bénéficient :

– d'information et de documentation scientifiques – Le *Bulletin de la Société préhistorique française* comprend, en quatre livraisons de 200 pages chacune environ, des articles, des comptes rendus, une rubrique d'actualités scientifiques et une autre sur la vie de la Société. La diffusion du bulletin se fait par abonnement annuel. Les autres publications de la SPF – Mémoires, Travaux, Séances, fascicules des Typologies de la Commission du Bronze, Actes des Congrès, Tables et index bibliographiques ainsi que les anciens numéros du *Bulletin* – sont disponibles au siège de la Société préhistorique française, sur son site web (avec une réduction de 20 % pour les membres de la SPF et téléchargement gratuit au format PDF lorsque l'ouvrage est épuisé) ou en librairie.

– de services – Les membres de la SPF ont accès à la riche bibliothèque de la Société, mise en dépôt à la bibliothèque du musée de l'Homme à Paris.

Régie par la loi de 1901, sans but lucratif, la Société préhistorique française vit des cotisations versées par ses adhérents. Contribuez à la vie de notre Société par vos cotisations, par des dons et en suscitant de nouvelles adhésions autour de vous.

ADHÉSION ET ABONNEMENT 2017

Le réabonnement est reconduit automatiquement d'année en année*.

Paiement en ligne sécurisé sur

www.prehistoire.org

ou paiement par courrier : formulaire papier à nous retourner à l'adresse de gestion et de correspondance de la SPF :

BSPF, Maison de l'archéologie et de l'ethnologie
Pôle éditorial, boîte 41, 21 allée de l'Université, 92023 Nanterre cedex

1. PERSONNES PHYSIQUES	Zone €**	Hors zone €
Adhésion à la *Société préhistorique française* et abonnement au *Bulletin de la Société préhistorique française*		
➢ tarif réduit (premier abonnement, étudiants, moins de 26 ans, demandeurs d'emploi, membres de la Prehistoric Society***)	❑ 40 €	❑ 45 €
➢ abonnement papier et électronique / renouvellement	❑ 75 €	❑ 80 €
➢ abonnement électronique seul (PDF)****	❑ 50 €	❑ 50 €
OU		
Abonnement papier et électronique au *Bulletin de la Société préhistorique française*****		
➢ abonnement annuel (sans adhésion)	❑ 85 €	❑ 90 €
OU		
Adhésion seule à la *Société préhistorique française*		
➢ cotisation annuelle	❑ 25 €	❑ 25 €
2. PERSONNES MORALES		
Abonnement papier au *Bulletin de la Société préhistorique française****		
➢ associations archéologiques françaises	❑ 110 €	
➢ autres personnes morales	❑ 145 €	❑ 155 €
Adhésion à la *Société préhistorique française*		
➢ cotisation annuelle	❑ 25 €	❑ 25 €

NOM : ..... PRÉNOM : .....

ADRESSE COMPLÈTE : .....

TÉLÉPHONE : ..... DATE DE NAISSANCE : ⎵ ⎵ / ⎵ ⎵ / ⎵ ⎵ ⎵ ⎵

E-MAIL : .....

VOUS ÊTES : ❑ « professionnel » (votre organisme de rattachement) : .....
❑ « bénévole » ❑ « étudiant » ❑ « autre » (préciser) : .....
Date d'adhésion et / ou d'abonnement : ⎵ ⎵ / ⎵ ⎵ / ⎵ ⎵

Merci d'indiquer les période(s) ou domaine(s) qui vous intéresse(nt) plus particulièrement :

.....

Date ....., signature :

Paiement par chèque libellé au nom de la Société préhistorique française, par **carte de crédit** (Visa, Mastercard et Eurocard) ou par **virement** à La Banque Postale • Paris IDF centre financier • 11, rue Bourseul, 75900 Paris cedex 15, France • RIB : 20041 00001 0040644J020 86 • IBAN : FR 07 2004 1000 0100 4064 4J02 086 • BIC : PSSTFRPPPAR.

Toute réclamation d'un bulletin non reçu de l'abonnement en cours doit se faire au plus tard dans l'année qui suit. Merci de toujours envoyer une enveloppe timbrée (tarif en vigueur) avec vos coordonnées en précisant vous souhaitez recevoir un reçu fiscal, une facture acquitée ou le timbre SPF de l'année en cours, et au besoin une nouvelle carte de membre.

❑ Carte bancaire : ❑ CB nationale ❑ Mastercard ❑ Visa

N° de carte bancaire : ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵ ⎵

Cryptogramme (3 derniers chiffres) : ⎵ ⎵ ⎵ Date d'expiration : ⎵ ⎵ / ⎵ ⎵ signature :

* : Pour une meilleure gestion de l'association, merci de bien vouloir envoyer par courrier ou par e-mail en fin d'année, ou en tout début de la nouvelle année, votre lettre de démission.

** : Zone euro de l'Union européenne : Allemagne, Autriche, Belgique, Chypre, Espagne, Estonie, Finlande, France, Grèce, Irlande, Italie, Lettonie, Lituanie, Luxembourg, Malte, Pays-Bas, Portugal, Slovaquie, Slovénie.

*** : Pour les moins de 26 ans, joindre une copie d'une pièce d'identité ; pour les demandeurs d'emploi, joindre un justificatif de Pôle emploi ; pour les membres de la Prehistoric Society, joindre une copie de la carte de membre ; le tarif « premier abonnement » profite exclusivement à des membres qui s'abonnent pour la toute première fois et est valable un an uniquement (ne concerne pas les réabonnements).

**** : L'abonnement électronique n'est accessible qu'aux personnes physiques ; il donne accès également aux numéros anciens du *Bulletin*. L'abonnement papier donne accès aux versions numériques (numéros en cours et anciens).

6

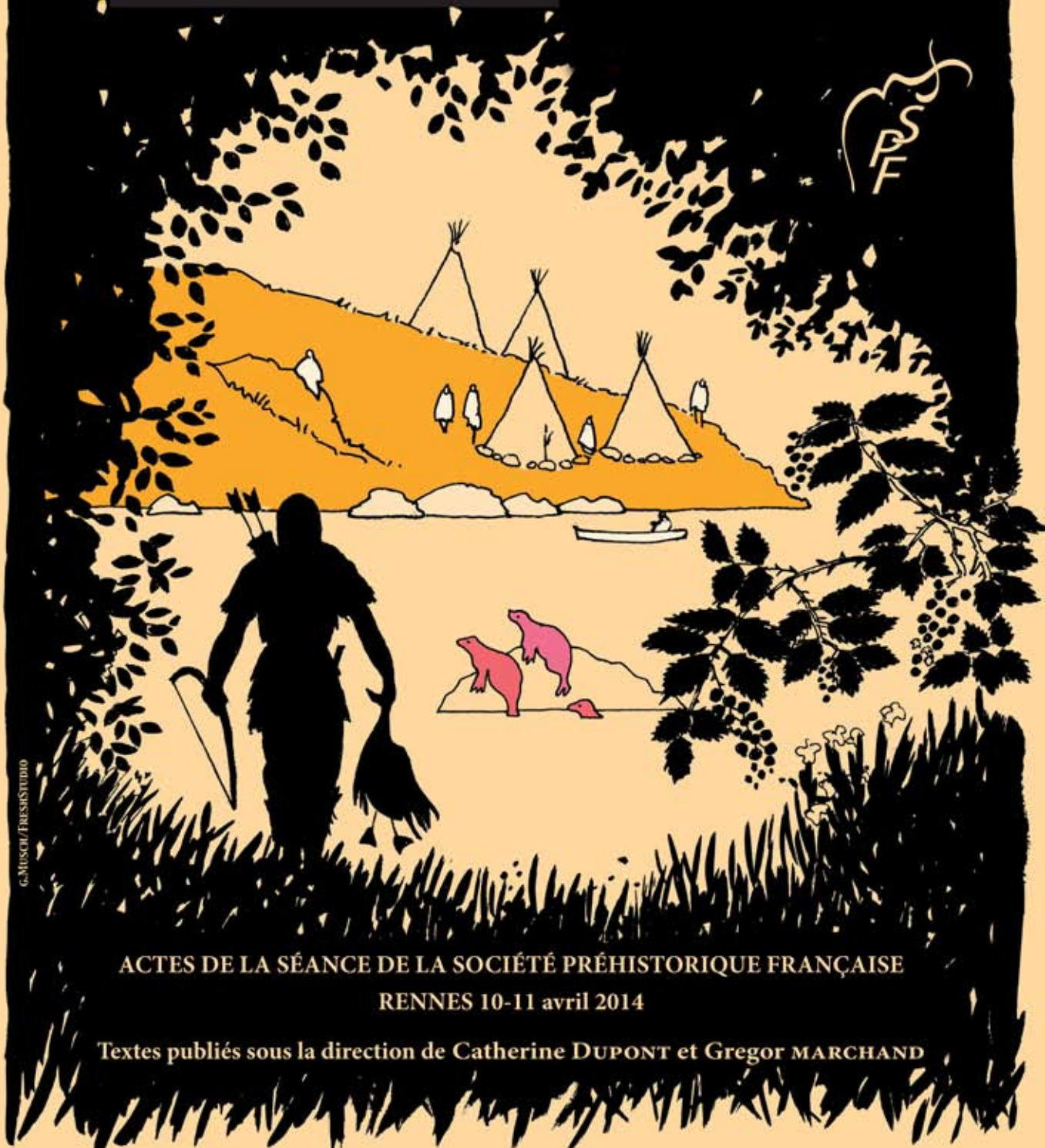
SÉANCES DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE

ARCHÉOLOGIE DES CHASSEURS-CUEILLEURS MARITIMES

DE LA FONCTION DES HABITATS À L'ORGANISATION DE L'ESPACE LITTORAL

ARCHAEOLOGY OF MARITIME HUNTER-GATHERERS

FROM SETTLEMENT FUNCTION TO THE ORGANIZATION OF THE COASTAL ZONE



ACTES DE LA SÉANCE DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE
RENNES 10-11 avril 2014

Textes publiés sous la direction de Catherine DUPONT et Gregor MARCHAND

Société préhistorique française
www.prehistoire.org

2016

ISBN : 2-913745-65-2 (en ligne)
ISSN : 2263-3847

SÉANCES DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE
6

ARCHÉOLOGIE DES CHASSEURS-CUEILLEURS MARITIMES

DE LA FONCTION DES HABITATS À L'ORGANISATION DE L'ESPACE LITTORAL

ARCHAEOLOGY OF MARITIME HUNTER-GATHERERS

FROM SETTLEMENT FUNCTION TO THE ORGANIZATION OF THE COASTAL ZONE

ACTES DE LA SCÉANCE DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE
RENNES
10-11 AVRIL 2014

Textes publiés sous la direction de

Catherine Dupont et Gregor Marchand

Société préhistorique française
Paris
2016

Les « Séances de la Société préhistorique française »
sont des publications en ligne disponibles sur :

www.prehistoire.org

Illustration de couverture : d'après l'affiche de la séance de G. Musch, FreshStudio.

Responsables des réunions scientifiques de la SPF :
Jacques Jaubert, José Gomez de Soto, Jean-Pierre Fagnart et Cyril Montoya
Directeur de la publication : Jean-Marc Pétillon
Secrétariat de rédaction, maquette et mise en page : Martin Sauvage et Frank Barbery (CNRS, USR 3225, Nanterre)
Correction et vérification : Karolin Mazurié de Keroualin (www.linarkeo.com)
Mise en ligne : Ludovic Mevel

Société préhistorique française
(reconnue d'utilité publique, décret du 28 juillet 1910). Grand Prix de l'Archéologie 1982.
Siège social : 22, rue Saint-Ambroise, 75011 Paris
Tél. : 01 43 57 16 97 – Fax : 01 43 57 73 95 – Mél. : spf@prehistoire.org
Site internet : www.prehistoire.org

Adresse de gestion et de correspondance

Maison de l'archéologie et de l'ethnologie,
Pôle éditorial, boîte 41, 21 allée de l'Université, F-92023 Nanterre cedex
Tél. : 01 46 69 24 44
La Banque Postale Paris 406-44 J

Publié avec le concours du ministère de la Culture et de la Communication (sous-direction de l'Archéologie),
du Centre national de la recherche scientifique,
de la direction des Affaires culturelles de Bretagne, de la région Bretagne, de l'université Rennes 1,
de l'UMR 6566 « Centre de recherches en archéologie, archéosciences, histoire (CReAAH) », Rennes,
et de la Maison des sciences de l'homme en Bretagne, Rennes.

Dépôt légal : 4e trimestre 2016

ISSN : 2263-3847 – ISBN : 2-913745-65-2 (en ligne)

SOMMAIRE/CONTENTS

REMERCIEMENTS

Nous souhaitons remercier tous les participants à cette séance de la Société préhistorique française, tenue en avril 2014 à Rennes, qu'ils fussent orateurs ou auditeurs. Tous ont participé à la qualité des échanges scientifiques durant ces deux journées.

Cette manifestation scientifique internationale n'aurait pas pu se dérouler sans le soutien logistique de l'UMR 6566 « CReAAH ». Plusieurs de nos collègues du laboratoire Archéosciences (université Rennes 1) ont assuré à la fois l'accueil et le déroulement des pauses de cette séance, avec leur efficacité et leur bonhommie légendaire : Francis Bertin, Annie Delahaie, Catherine Louazel, Catherine Gorlini et Laurent Quesnel. Nous remercions également Diana Nukushina et Helena Reis pour leur aide au bon déroulement des séances. Nous sommes gré à Franck Wellmann de l'université Rennes 1 qui nous a apporté le support informatique et multimédia de la salle de conférence. Nous remercions Louise Byrne pour la correction et la révision des textes en anglais.

L'organisation de cet évènement a également été soutenue financièrement par de nombreux organismes publics et des projets de recherche : le projet européen « Arch-Manche » (Interreg IVA 2 Mers, fonds FEDER), le projet « SeaMeso » de la Maison des sciences de l'homme en Bretagne, le CNRS (DR 17), l'Observatoire des sciences de l'Univers de Rennes (OSUR), le ministère de la Culture (service régional de l'Archéologie de Bretagne) et la région Bretagne. L'université Rennes 1 a permis l'utilisation de l'amphithéâtre Donzelot. Enfin, nous tenons à remercier la Société préhistorique française d'avoir accepté de labelliser cet évènement « Séance de la Société préhistorique française ».

ACKNOWLEDGEMENTS

We wish to thank all the orators and auditors who participated in this session of the Société préhistorique française, held in April 2014 in Rennes. The quality of their presentations and questions, during the session or in the corridors, resulted in pertinent exchanges during these two days.

This international scientific event could not have taken place without the logistic support of the UMR 6566 'CReAAH'. Several of our colleagues from the Archaeosciences laboratory (Rennes 1 University) oversaw the reception of participants and the breaks during the session with their legendary efficiency and good nature: Francis Bertin, Annie Delahaie, Catherine Louazel, Catherine Gorlini and Laurent Quesnel. We also thank Diana Nukushina and Helena Reis for their help with the smooth running of the sessions. We are grateful to Franck Wellmann from the Rennes 1 University of for looking after the computer and multimedia installations in the conference room. We thank Louise Byrne for the correction in english of the abstracts and the texts.

The organization of this event also received financial support from a number of public bodies and research projects: UMR 6566 'CReAAH', the European 'Arch-Manche' project (Interreg IVA 2 Mers, FEDER funds), the project 'SeaMeso' from the Maison des Sciences de l'Homme en Bretagne, the CNRS (DR 17), the Rennes Observatory of the Sciences of the Universe (Observatoire des sciences de l'Univers de Rennes, OSUR), the French Ministry of Culture (Regional Archaeology Service of Brittany) and the Brittany region. The Rennes 1 University kindly let us use the Donzelot amphitheatre. Finally, we wish to thank the Société préhistorique française for accepting to categorize this event as a 'French Prehistoric Society session'.

Archéologie des chasseurs-cueilleurs maritimes.
De la fonction des habitats à l'organisation de l'espace littoral
Archaeology of maritime hunter-gatherers.
From settlement function to the organization of the coastal zone
Actes de la séance de la Société préhistorique française de Rennes, 10-11 avril 2014
Textes publiés sous la direction de Catherine Dupont et Gregor Marchand
Paris, Société préhistorique française, 2016
(Séances de la Société préhistorique française, 6), p. 393-408
www.prehistoire.org
ISSN : 2263-3847 – ISBN : 2-913745-2-913745-65-2

Lords of the Shell Rings

Boisman Neolithic Culture, Russian Far East

Alexander N. Popov and Andrey V. Tabarev

Abstract: The Boisman Neolithic culture (6500–4700 BP) has yielded the most informative complex of archaeological materials in the whole of the Russian Far East. This culture is located in coastal and island zones and is represented by several series of open-air sites and sites with shell mounds. Shell mound sites include burial complexes. Most of the characteristics of these burials (a wide range of decorative items, intentional cranial deformation, imported materials, various types of graves, etc.) point to the presence of a Boisman tribal elite. Correlations with neighbouring (Jomon culture, Japanese Archipelago) and distant regions (Valdivia culture, Ecuador) confirm the complex structure and intensive ceremonial practices of Neolithic societies in the Pacific basin.

Keywords: Russian Far East, Neolithic, shell mound, burial rituals, pottery.

Résumé : La culture néolithique de Boismanskaya (6500-4700 BP) est la plus complexe et la plus riche de tout l'Extrême-Orient russe par ses matériaux archéologiques. Située sur les zones côtières et sur des îles, elle est bien connue par toute une série de sites de plein-air et d'amas coquillers. Ces derniers comprennent des cimetières. Les caractéristiques de ces tombes (large éventail de parures, déformations crâniennes intentionnelles, matériaux importés, divers types de tombes, etc.) renvoient à des pratiques funéraires d'une élite de la culture de Boismanskaya. Les corrélations entre ces caractéristiques et celles dans les régions voisines (culture de Jomon de l'archipel japonais) ou éloignées confirment la structure complexe et les pratiques cérémonielles intensives des sociétés néolithiques présentes autour du Pacifique.

Mots clés : Extrême-Orient russe, Néolithique, amas coquillers, pratiques rituelles, céramique.

The Boisman -2 site was discovered in 1987 during systematic research carried out at Early Neolithic sites on the sea coast in the southern part of the Primorsky krai, in the Russian Far East. In the 1950s, richly decorated pottery sherds were collected from a number of ruined surfaces (e.g. Khansi-1, Zarechie-1), prompting local archaeologists to point out the existence of an unknown Neolithic culture and to look for *in situ* sites with stratigraphic complexes. Two such sites (Boisman-1-2) were found near Boisman Bay.

The Boisman-1 site (a seasonal camp) is located about 2 km from the current coast, while Boisman-2 site (a shell mound burial complex) is situated about 1 km from the coastline, right on the bank of the Riazanovka River mouth (fig.1, no. 1). This site was intensively investigated by scientists from the Far Eastern Federal University (Vladivostok) in two stages (1991–1996 and 1998–2006), and yielded outstanding archaeological and anthropological collections along with invaluable data on fauna and climatic conditions during the Holocene optimum. All this information led to the construction of the Boisman culture model, to refining its chronology (6825–4470 BP) and territorial extension (to southern and southeastern parts of the region), and to interpreting the economic and social features of this culture. During the 1990s and the early 2000s, several new sites with typical Boisman pottery (but without shell mounds and burials) were found along the coast and in continental parts of the Maritime Region (Posiet-1, Luzanova Sopka: Popov and Tabarev, 2008).

A new stage of archaeological investigations into Boisman culture began in 2011, and focused on the new sites (Boyarin-6, 7) located on Russky Island (right in front of Vladivostok; fig.1, no. 2). This research provided an outstanding perspective for broadening our understanding of the 'Boisman Culture World' and opened new horizons for international cooperation in both the Eurasian region and the Pacific basin.

Fig. 1 – Primorsky krai, Russian Far East, sites mentioned in the text. 1: Boisman-1 and Boisman-2; 2: Boyarin-6 and Boyarin-7.
Fig. 1 – Kraï du Primorié, Extrême-Orient russe, sites mentionnés dans le texte. 1 : Boisman-1 et Boisman-2 ; 2 : Boyarin-6 et Boyarin-7.

In spite of a number of publications in English, the detailed characteristics of Boisman culture, its position in the multicultural Far Eastern Neolithic, and its significance for archaeological interpretations of Neolithic societies are not well known to European specialists. A presentation with the current title, basic information about Boisman culture, along with a series of photos and illustrations, was made at the 'Archaeology of Maritime Hunter-Gatherers: From Settlement Function to the Organization of the Coastal Zone' international meeting in Rennes, in April, 2014. Taking into consideration the specific character of the Far Eastern Neolithic, this paper includes archaeological information on the Boisman culture, a short historical overview of the theoretical background and research paradigms used in Soviet and modern Russian archaeological science, as well as a focus on the discussion of the elite character of the Boisman burial site. All the references in this article are in European languages.

THE NEOLITHIC IN THE RUSSIAN FAR EAST

Theoretical approach

Traditionally, in Soviet archaeology the interpretation of the Neolithic period was closely linked to the evolutionary approach and sequences of stadial periods (Paleolithic–Mesolithic–Neolithic). On the one hand, it was inspired by the works of V. Gordon Childe and the 'Neolithic revolution' model. On the other hand, considering the landscape and forest cover over most of the Eastern European and Siberian territory, the advent of the Neolithic was not generally linked to early farming but to the appearance of new types of containers (ceramic vessels), ground and polished tools, a semi-sedentary way of life and the increasing size of settlements with subterranean types of habitat constructions. The Neolithic was recognized as a rapid and major (revolutionary) shift from previous ways of life during the Early Holocene.

Since the mid-1990s, this approach has become more complex and flexible, incorporating the intensive exploration of multi-linear models of social and economic evolution in prehistory; the new internal periodization of the Neolithic with focus on regional characteristics; more attention to ritual activities and interregional contacts between Neolithic cultures. Today, in such an approach the term 'culture' is used to designate similar sets of types (pottery, stone tools, burials and dwellings) found at series of sites within delimited territories and time frames. For most territories east of the Ural Mountains (Siberia and the Russian Far East), the Neolithic includes early, middle and late periods.

During the past decade, most archaeologists working on Neolithic materials in the Far East (Russian Far East,

Japanese Archipelago) prefer to describe Neolithic cultures in terms of the 'Neolithisation model'—and encompass the full spectrum of human social, economic, and ritual activities, with particular focus on links between 'Man' and 'Nature' and on changes in the landscape as a result of human activities. In the context of the major international project 'Neolithisation and Modernization: Landscape History on East Asian Inland Seas' (led by the Research Institute for Humanity and Nature, Kyoto, Japan) carried out in 2007, the authors of this paper were among the first to apply the neolithisation concept to the Boisman culture materials (Popov and Tabarev, 2008; Popov et al., 2009).

Another research instrument, known as the 'Neolithic package' (list of typical artefacts, groups of artefacts, and features; for example, Cilingiroğlu, 2005), is rarely used in publications devoted to the Neolithic in the Russian Far East and Jomon (Japanese Islands). Again, it is linked to a fundamental aspect of the beginning of the Neolithic – the appearance of pottery. There is no 'Pre-Pottery Neolithic' (unlike in the Near East), and all complexes without traces of pottery vessels (containers) are regarded as Final Paleolithic.

Current state of research and the main characteristics of the local Neolithic

These changes in the archaeological research toolkit were not only influenced by changes in the theoretical and ideological structure of social sciences in Russia but also by the series of very important discoveries at Neolithic sites during the late 1980s–1990s. It should be stressed that the majority of these discoveries took place in the Far Eastern region of Russia. These discoveries led to the concept of regional Neolithic attributes in the Russian Far East:

– Early appearance of pottery. Very shortly after the first pottery finds of Paleolithic age (13,000–12,000 BP) on Japanese islands, similar materials were discovered in clear stratigraphic position on the Lower and Middle Amur (Russian Far East) in complexes attributed to the Osipovskaya and Gramatukhinskaya cultures (Kuzmin, 2006 and 2010). This moved back the lower Neolithic framework from the Early Holocene to the Final Pleistocene and led to the proposal of another period—the Initial Neolithic.

– Absence of the Mesolithic as a transitional period. Although the Mesolithic is a technologically distinctive period (with specific types of stone, bone, and antler tools) in the European Stone Age between the Paleolithic and the Neolithic, the only difference between Final Paleolithic and Initial Neolithic cultures in the Far East is pottery. Stone tool diversity, proportions, and raw materials remain unchanged. Pottery appears in a technological complex characterized by wedge-shaped micro-cores, sub-prismatic blade cores, bifacial points and knives, transversal burins, end scrapers, and wood-working tools (axes, adzes, chisels; Tabarev, 2006).

– Multilinear and overlapping character of Neolithic cultures. Specialists argue about the presence of at least two technological traditions and two groups of cultures. The first indicates the predominance of bifacial tools and tools on flakes without blades, while the other group is linked to the development of blade cores (by percussion or/and pressure), where blades are the main blanks for instruments. The best example of the co-existence and overlapping of several cultures is the Middle Neolithic (Holocene climatic optimum). Three to four cultures have been identified in the Amur Region and at least four cultures are known in the Primorsky krai. Some specialists even divide these cultures into local variants or subcultures (for example, coastal and inland; Batarshev and Popov, 2008).

– The Neolithic in the Russian Far East is a very long historical period—starting with the origin of early pottery (15,000–14,000 BP) and extending until the first metal objects (bronze, iron, gold) emerge around 2,500 BP, representing a total of about 13,000 years (Tabarev, 2014).

– Agriculture also emerges in these territories at a very late stage. It spread from the neighbouring territories of China and Korea not earlier than 3500–3000 BP. Initially, it represented new types of food consumption and was only adopted at a later stage as locally cultivated crops. In fact, the 'agricultural Neolithic' period has a short history in the southern part of the Russian Far East.

– The issue of organic materials. Unfortunately most of the regional soils in the Far East are extremely acidic and drastically influence the preservation of organic materials. Only a few sites with specific contexts (caves, shell mounds) comprise the whole spectrum of artefacts (anthropological, faunal), but in most cases, finds only include pottery and stone tools.

Thus, for most of the main Neolithic period (12,000–11,000 BP), the Russian Far East comprises the rich remains of various hunter-gatherer societies alongside highly developed maritime or riverine/lake occupations focusing on the exploration of a wide range of aquatic resources.

BOISMAN NEOLITHIC CULTURE

Discovery and first research period (RP-1), 1991-1996

The Holocene period in Primorye krai was mostly warm, with a rise in mean annual temperatures. Climatic periodisation can be presented as follows: Preboreal period (10,000–9300 BP); Boreal period (9300–8000 BP); Atlantic period (8000–5000 BP) and Sub-Boreal period (5000–2500 BP). The Boreal, Atlantic and Sub-Boreal periods were much warmer and provided more comfortable conditions for the development of archaeological cultures in the Far East. During the Early Holocene—the Pre-Boreal and Boreal periods—most of the territories of the modern Russian Far East were covered by birch-larch forests in northern areas and by mixed coniferous-massive broad-leaves with thermophilous species in southern areas. It is clear that optimal climatic conditions

occurred in the Russian Far East during the warm and humid Atlantic period. Vegetation included dark coniferous forests and mixed coniferous-broadleaved forests. The annual temperature was about 2 to 3 degrees higher than today, and during this period the levels of the Sea of Japan and the Okhotsk Sea were 1.5 to 4 m higher than at present (Lutaenko et al., 2007). This short description of paleoclimatic conditions provides more arguments for affirming that the Holocene optimum was the most favourable period for the development of ancient cultures with hunting, gathering, and fishing strategies.

The Boisman-2 site (42°47'20'' NL, 131°16'30'' EL) is a complex archaeological site with burials and remains of a small dwelling construction in a shell mound (Boisman culture, Middle Neolithic) and some later cultural additions (Late Neolithic, Early Iron Age) in the upper part of the shell mound. Anthropological materials found in the cross-section of the shell mound in 1987 were part of a burial complex called Burial Set 1. This complex was excavated during several seasons (1991–96) by a team of archaeologists, paleozoologists and paleogeographers.

The total surface of burial set 1 is about 30 m^2 with an average depth about 1.2-1.5 m. It includes five burials —three single and two multiple graves (fig. 2). The main features of each of these graves are listed below.

Grave 1-1: two complete skeletons—a male (20 years old) with a stone point fragment lodged in a vertebra and another point inside the skull. The other skeleton belongs to a female (40–45 years old). Some separate bones could belong to two more children (4–6 years old; fig. 3, no. 1).

Grave 1-2 (central and the most important one): an old female (about 60) with abundant tools, instruments and adornments in bone, antler, and stone. A large flat stone (18 × 10 cm) was placed in the grave. The body was covered with the level of shells and earth. After that, a small ceremonial fire was set up above the grave (fig. 3, no. 2).

Grave 1-3: a teenager (14–15 years old) and a female (24–29 years old). The female was pregnant (several foetal bones were found) and she was killed by a hard blow on the back of the head. In the same grave, there were also isolated bones from three children (2–7 years old) and two women (20 and 45 years old; fig. 3, no. 3).

Grave 1-4: a male (22–25 years old) with a large obsidian biface between the forearms and a set of long polished arrow points (fig. 3, no. 4).

Grave 1-5: a male (25–30 years old) accompanied by stone tools (points, scrapers) and three bone harpoons (fig. 3, no. 5).

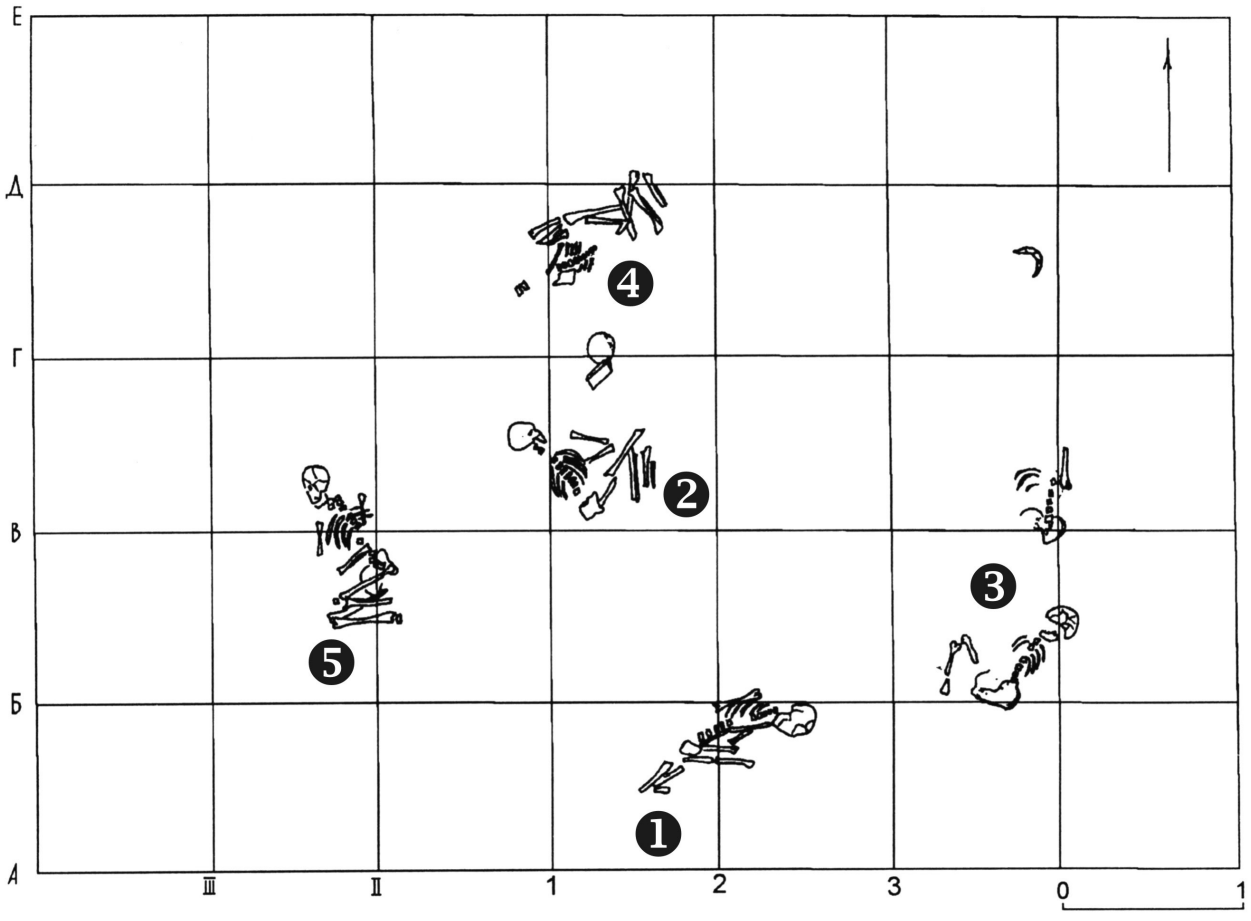


Fig. 2 – Boisman-2 site, burial set 1.
Fig. 2 – Site de Boisman-2, groupe de sépultures 1.

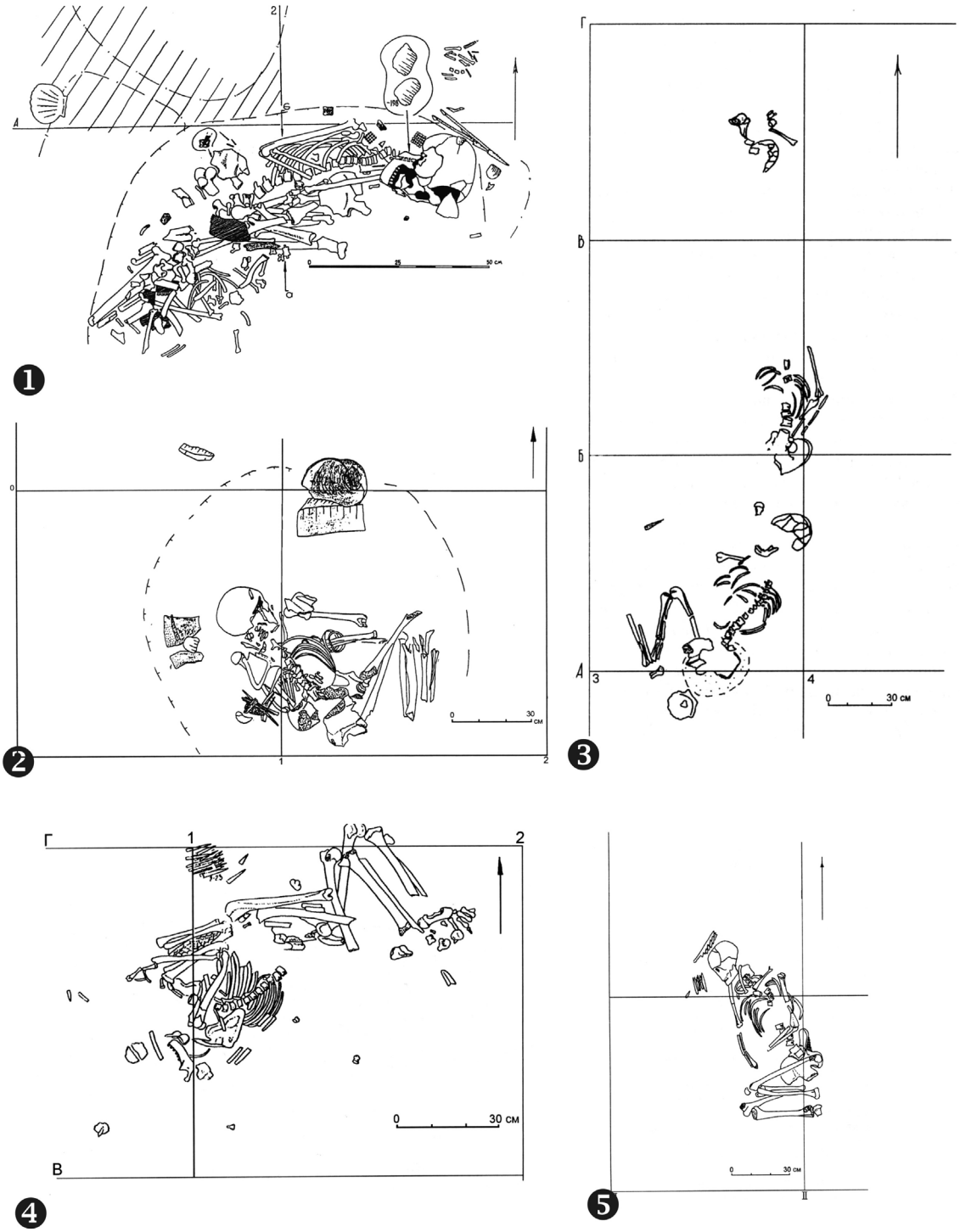


Fig. 3 – Boisman-2 site, burial set 1. Graves 1-1 to 1-5.
Fig. 3 –Site de Boisman-2, groupe de sépultures 1. Tombes 1-1 à 1-5.

The graves present some interesting attributes. The male heads were placed on flat stones whereas almost all of the women were buried at the men's feet. Fragments of animal bones were only found in complex burials (grave 1-1 and grave 1-3); the skeletal parts in graves 1-1, 1-3 and 1-4 may be interpreted as secondary burials added to the main grave at a later stage. The toolkit differentiates male and female burials—male burials generally contained harpoons and points, whereas female burials were accompanied by fish knives, needles, and small stone instruments. The central grave (grave 1-2) belongs to a special person—an old female (60 years old) and contains the richest kinds of implements. This underlines her important social status and position (chief, shaman).

Anthropological analyses of the skulls confirm that intentional cranial deformation was practiced

by the Boisman people. The best evidence of this comes from skulls from grave 1-2 (the 60-year-old female; fig. 4, no. 1), grave 1-3 (13-year-old teenager and 24–25-year-old female; fig. 4, no. 2), grave 1-3 (female; fig. 5, no. 1), and grave 1-5 (male, around 25 years old; fig. 5, no. 2). So far, this is the earliest evidence of cranial deformation for the whole Pacific region.

Multiple traces of fire places over the shell mound indicate that regular ceremonies were held by the Boisman people in memory of their buried ancestors. Each ceremony was accompanied by rich feasting and special food, consisting of oysters gathered in the vicinity of the cemetery. Series of radiocarbon dates on samples taken during the excavation of burial set 1 situate the site between 6500 and 5000 BP.

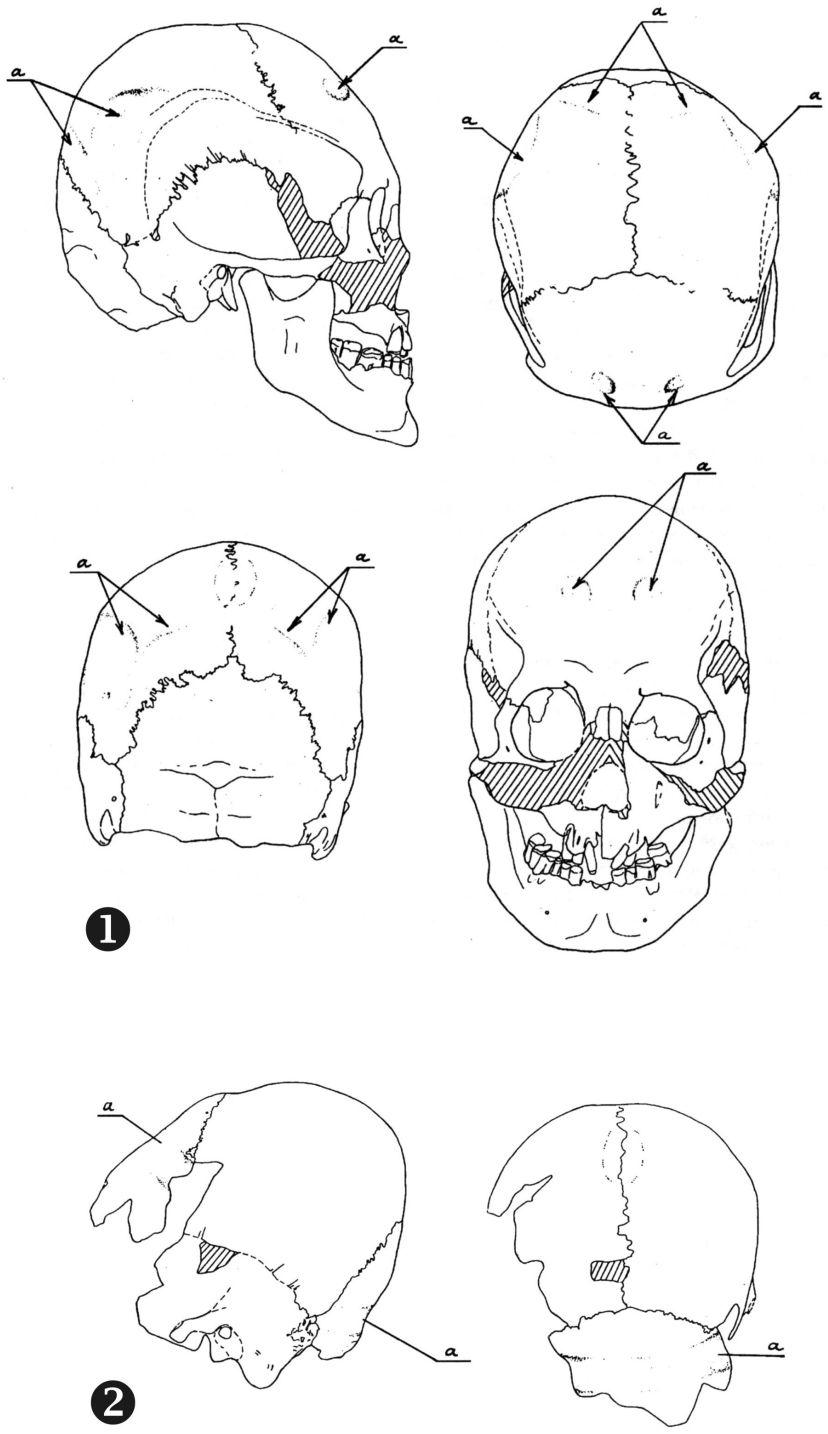


Fig. 4 – Boisman-2 site, burial set 1. Skulls with intentional cranial deformation. Traces of fixing bandage indicated by 'a'.
Fig. 4 – Site de Boisman-2, groupe de sépultures 1. Crânes avec une déformation intentionnelle. Des traces du bandage sont indiquées par « a ».

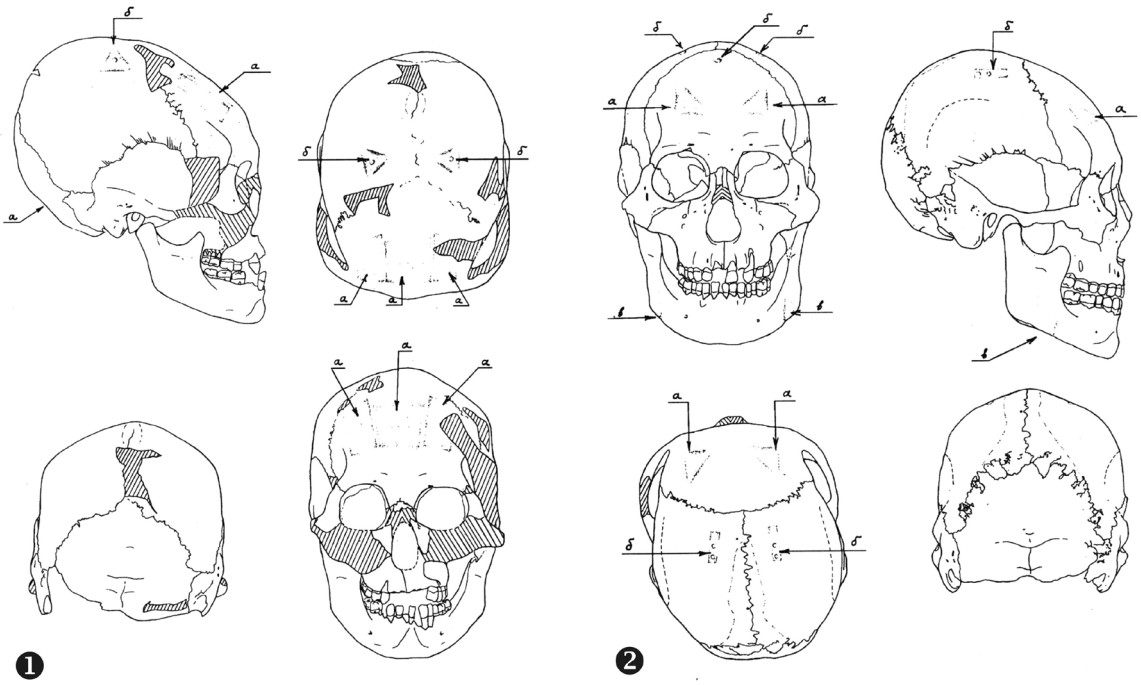


Fig. 5 – Boisman-2 site, burial set 1. Skulls with intentional cranial deformation. Traces of fixing bandage indicated by 'a'and traces of separate plaques (wood-?) indicated by 'б'.
Fig. 5 – Site de Boisman-2, groupe de sépultures 1. Crânes avec une déformation intentionnelle. Des traces du bandage sont indiquées par « a » et des traces de planchettes (en bois ?) sont indiquées par « б ».

The first period of excavation at Boisman-2 revealed exceptional materials and information relating to a new archaeological culture. On the other hand, it also generated a number of important questions. Where are the roots of this culture located? Are they to be found in the local Early Neolithic, which is almost unknown to specialists, or did these people come to Boisman bay from neighbouring territories (China, the Korean Peninsula, the Japanese Archipelago)? Did they only settle on the coast or did they also live inland and on the islands? What happened to this culture at the end of the Holocene optimum? Was it assimilated by Late Neolithic cultures or moved it to other territories?

Second research period (RP-2), 1998-2006

After a short break, investigations were resumed at the Boisman-2 site. It soon became clear that the shell mound contained more than one series of burials, a second set, labelled burial set 2 was uncovered (Popov, 2008).

The Neolithic burial set 2 was found about 18 m from set 1 and was excavated over a surface of 40–42 m^2. It also has a round structure with a central burial. Altogether, six graves were studied (fig. 6).

Grave 2-1: single burial of a male (20–25 years old) with numerous stone and bone instruments.

Grave 2-2: triple burial including a child (2–7 years old) and a female skeleton, both without skulls, along with two large limb-bones (another person) between them.

Grave 2-3: complex burial. Seven skeletons in well-documented anatomical positions were placed in three levels. First level: two skeletons (male, 35–40 years old and female 35–40 years old); second level: one skeleton (young woman, 14–15 years old); third level: four skeletons (female, 35–40 years old; female, 20–25 years old; and two more females without age determination; fig. 7, no. 1).

Grave 2-4: double burial (central and most important burial of set 2), male and female in a 'piggyback' position. The upper skeleton belongs to a male (40–45 years old) and the lower one to a female (30-35 years old). Both skeletons were accompanied by large stones (like in the central burial in set 1; fig. 7, no. 2).

Grave 2-5: Also a double inhumation but with inversed positions for the male and female remains (fig. 8, no. 1). The upper skeleton is female (25–30 years old), and the lower one is male (40–45 years old) (fig. 8, no. 2). They were partly separated by a thin level of shells (Grassostrea gigas). Several arrow points were found inside the skeletons, between ribs and under the humerus. These may indicate violent death.

Grave 2-6: Slightly outside the main circle of burials. It is represented by a single female burial (25–30 years old) with part of a femur from another individual near the feet.

All the graves in set 2 were located on specially prepared ground filled with fine gravel. There are also traces of ceremonial fires, including a line of burnt soil (150 cm long and 60–70 cm wide) in the central part of the ground. This soil contains burnt fragments of shells, animal and bird bones. Several large stones were placed to the west and south of the burnt soil line.

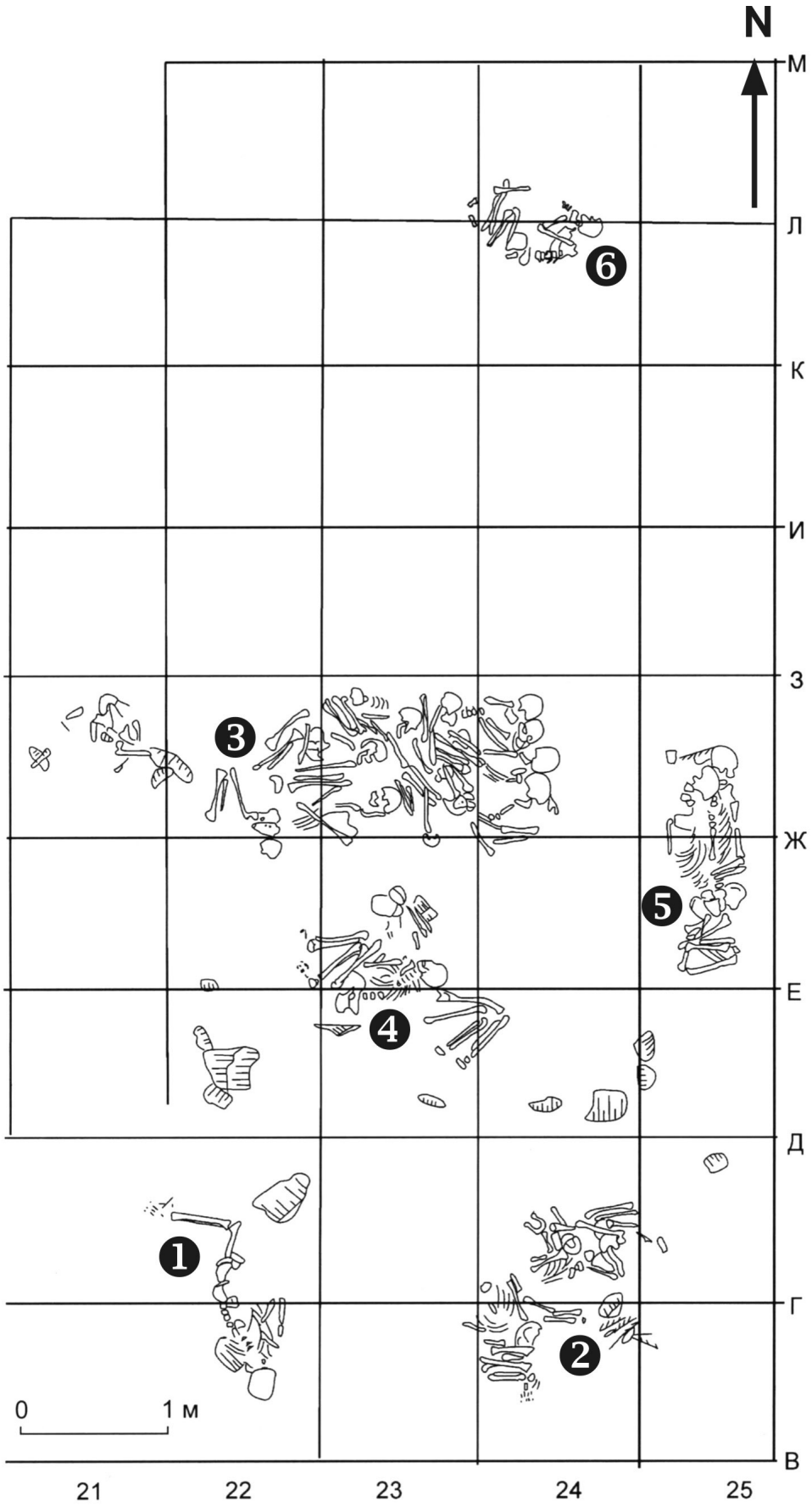


Fig. 6 – Boisman-2 site, burial set 2. Graves 2-1 to 2-6.
Fig. 6 – Site de Boisman-2, groupe de sépultures 2. Sépultures 2-1 à 2-6.

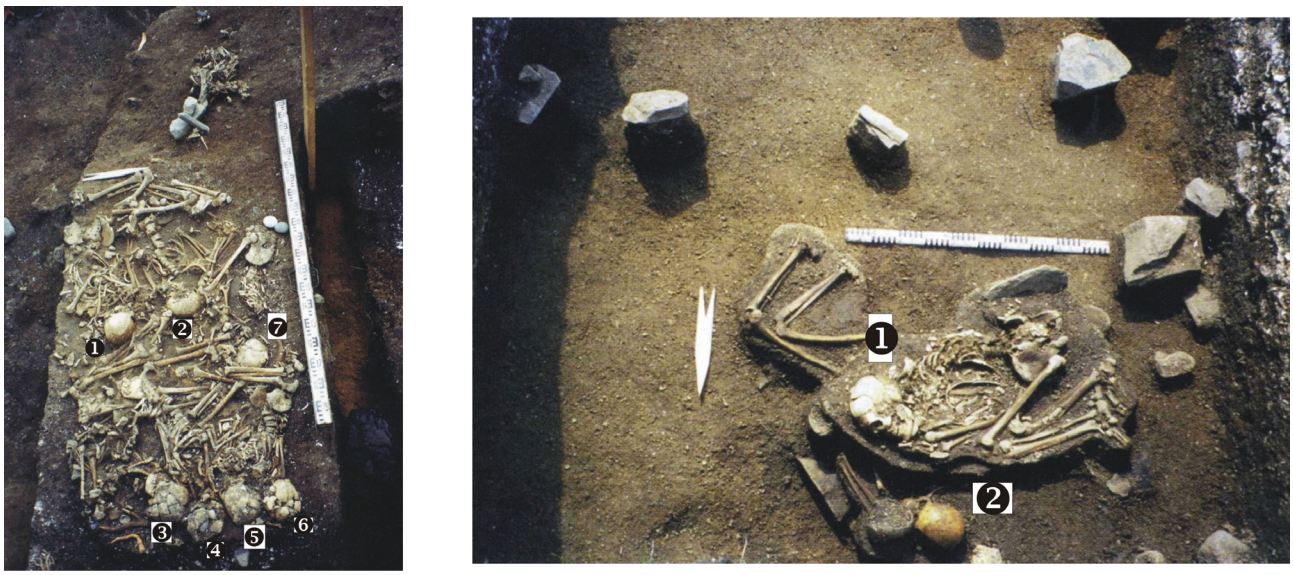


Fig. 7 – Boisman-2 site, burial set 2. 1: grave 2-3; 2: grave 2-4.
Fig. 7 – Site de Boisman-2, groupe de sépultures 2. 1 : sépulture 2-3 ; 2 : sépulture 2-4.

Fig. 8 – Boisman-2 site, burial set 2. 1: grave 2-5; 2: grave 2-5 (male skeleton).
Fig. 8 – Site de Boisman-2, groupe de sépultures 2. 1 : sépulture 2-5 ; 2 : sépulture 2-5 (squelette masculin).

Some new information relating to the origin of Boisman culture was found in the lower horizons. This consists of a complex of unusual ceramic artefacts including angular-bottomed vessels. Decoration is formed by straight or wavy lines, made by stamps and other techniques. All the other pottery found in both Burial Sets was part of the flat-based tradition. The carbon dating of this new complex (7100–7000 BP) points to a possible Proto-Boisman period. It is interesting that these vessels are not connected to any burials or dwelling structures, and that they are analogous to those from Neolithic complexes in the southern part of the Korean Peninsula. This may point towards the possible homeland of the Boisman culture.

The second period of archaeological work at the Boisman-2 site also included intensive investigations and reconstructions of the paleo-landscape and climatic conditions. The reconstruction of the history of the Boisman bay coastline (southeast of the Primorsky krai) during the Atlantic period was based on the complex analysis of sediments uncovered by boreholes and outcrop clearings in the Riazanovka River Valley. The earliest phase (7100–7350 BP) of landscape history and climatic conditions is comparable to the modern period. The level of the Japanese Sea was rising. The further transgression of the Japanese Sea at the end of the mid-Atlantic period led to the formation of multiple lagoons in river mouths. The rise in sea level was about 1–3 m higher than the current level. A large lagoon with active water exchange with the ocean developed in the Riazanovka River mouth. The lagoon increased in size, to a coastal width of about 15 km. Oyster banks reemerged in the lagoon about 11 km from the modern coast. Conditions were at their most humid and warmest levels for the whole Holocene period. The age of this optimum is between 6450 and 5000 BP. The early Sub-Boreal period represents global cooling. The drainage of lagoons and lake-lagoons that took place on the coast of Boisman Bay is visible in sections of terraces as a break in sediment accumulation. The level of the Japanese Sea fell to several meters below the present level.

During the late 1990s and the early 2000s, several new sites with typical Boisman pottery were discovered in the same coastal area and in inland regions. They provide additional information on the territory occupied by Boisman people. However, no more shell mounds and burials were found, and the Boisman-2 site thus retains its uniqueness.

DISCUSSION AND PERSPECTIVES

On evidence of an elite in the Boisman society

One of the most interesting and intriguing interpretations of the Boisman-2 site is that it was a tribal elite cemetery (necropolis). What arguments can back up this interpretation?

– A special (sacred) place on the coast. During most of the Holocene optimum, the Boisman-2 site was located right on the seashore (on the beach) and near the mouth of the river. It is ideally exposed to the sun, as it opens to the east, southeast and south, while it is sheltered to the west and the north by a group of hills. Therefore, it was not visible from the continent, but remained observable from the sea. All this created a kind of private (sacred) space for special activities or ceremonies.

– Both sets of burials demonstrate similar organization – a circle of graves wherein the central one is the richest and the most important. This may point to the structure of the society, and to the size of nuclear groups or families.

– The variety of burials (single, double, multiple) indicates developed ritual practices and differential approaches to the dead based on status and age.

– Impressive burial goods: richly decorated pottery, personal ornaments (diadems, pectorals, bracelets, and rings) made from bone, antler, shell, nephrite, obsidian etc. (fig.9; fig. 10; fig.11). This demonstrates craft skills in this society and the notion of an afterlife in another dimension. In spite of some visible similarities between artefacts in male and female graves, all the burials are individual burials in terms of the number and variety of items, and even the decoration of vessels is unique. This is a strong sign that great attention was paid to the personality of the dead (fig. 12).

– Materials imported from long distances (volcanic glass, nephrite). First of all, volcanic glass (obsidian) which could come from sources about 400–500 km from Boisman-2, on the Chinese-Korean border (Paectu volcano; Tabarev, 2004). Control over such long-distance trade (exchange, special trips) is a very important marker of social differentiation. But not only the distance is important: obsidian was also used for some special types of grave goods. One of the best examples is a large obsidian biface in grave 1-4 (205 × 55 × 18 cm). It was manufactured in black volcanic glass of the highest quality by percussion and delicate pressure, and placed between the forearms of a male (22–25 years old). We think that this complex may have possible analogies on the other side of the Pacific, in the so-called 'White Deerskin Dance' performed by a number of Northern California and Oregon tribes (Hupa, Tolowa, Karok) and recorded by specialists at the very end of the 19th and in the early 20th century (Goldschmidt and Driver, 1940; Rust, 1905; Woodruff, 1892). During seasonal feasts, Indians displayed various prestige items including huge obsidian blades (bifaces). Special dancers kept these bifaces (usually two—red and black) between their forearms. Some earlier examples are also known from burials in the same region (Cressman, 1933).

– Cranial deformation registered for all skeletons. All the individuals in both burial sets at the Boisman-2 site show visible traces of intentional cranial deformation. This practice of body modification is globally recognized as a demonstration of status.

– Traces of ritual violence. As mentioned above, several skeletons show evidence of injury produced by stone

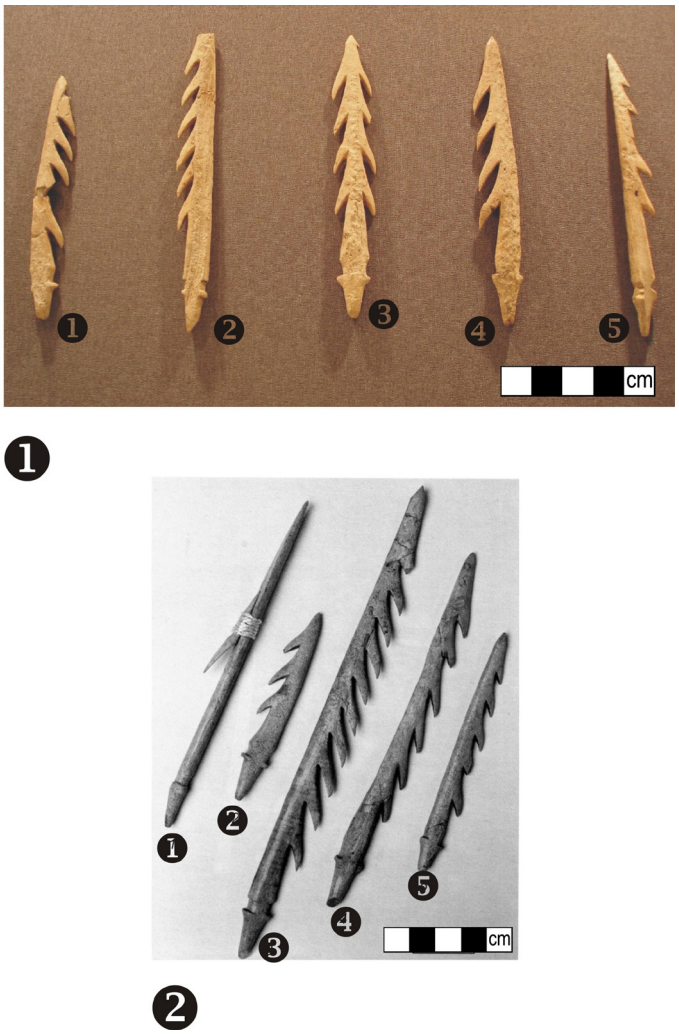


Fig. 9 – Boisman-2 site; harpoons. 1: burial set 1; 2: burial set 2.
Fig. 9 – Site de Boisman-2, harpons. 1 : groupe de sépultures 1 ; 2 : groupe de sépultures 2.

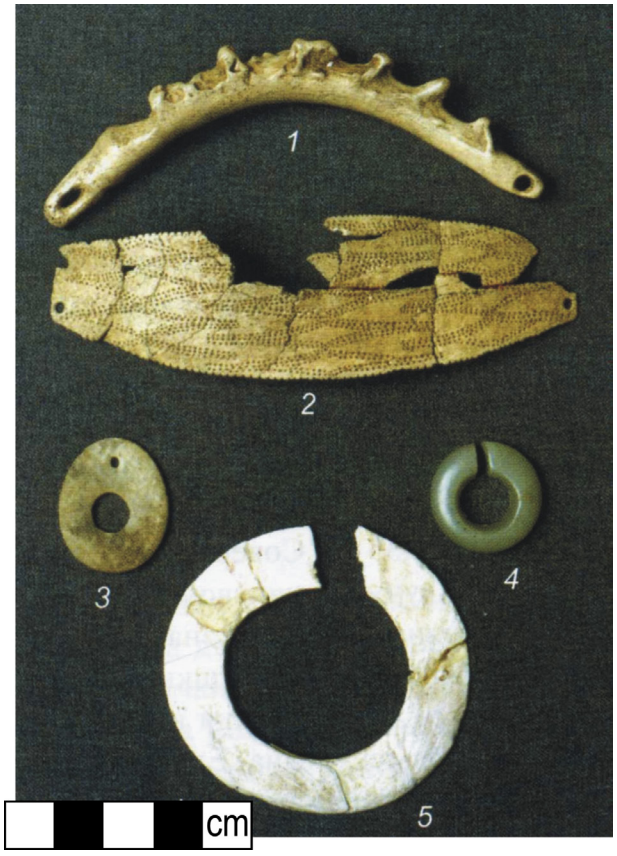


Fig. 10 – Boisman-2 site, personal ornaments. 1: antler; 2: bone; 3: shell; 4 and 5: nephrite.
Fig. 10 – Site de Boisman-2, parures. 1 : bois de cerf ; 2 : os ; 3 : coquille ; 4 et 5 : néphrite.

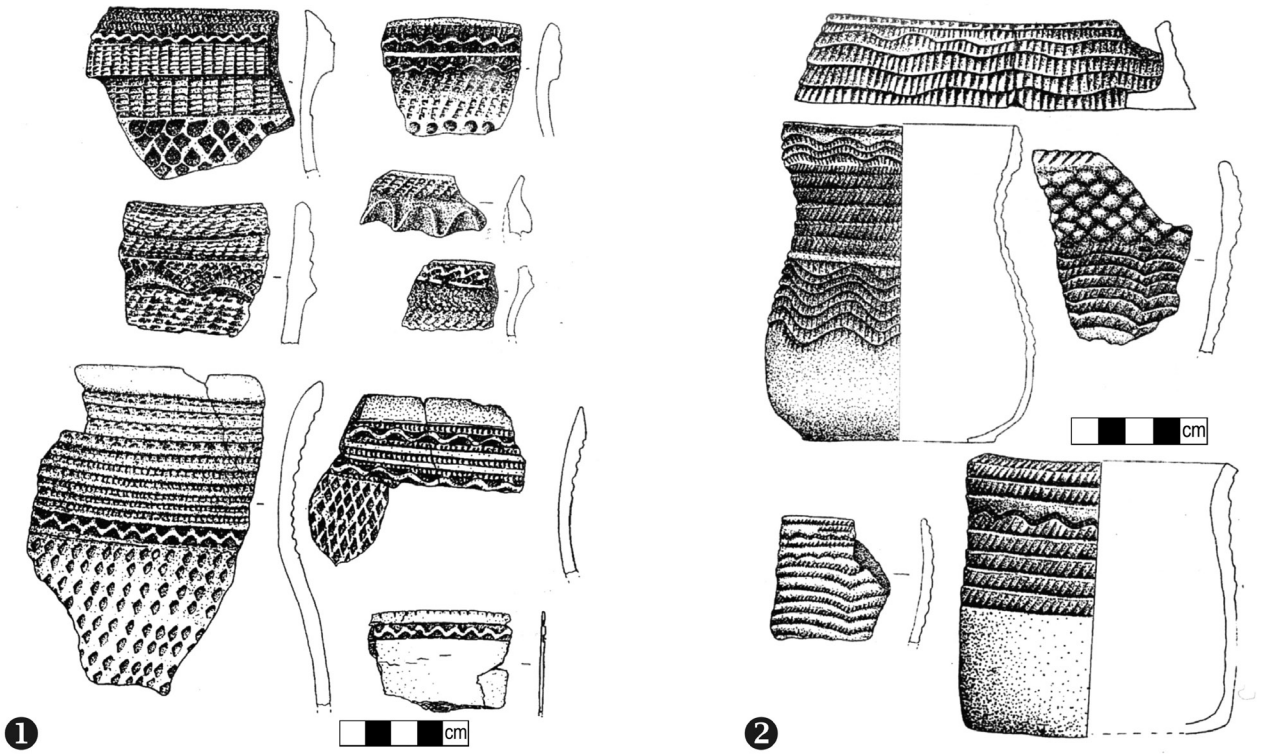


Fig. 11 – Boisman-2 site, pottery from the burials. 1: plastic decoration; 2: decoration made with a small spatula.
Fig. 11 – Site de Boisman-2, céramique provenant des tombes. 1 : décor appliqué ; 2 : décor exécuté à l'aide d'une petite spatule.

Fig. 12 – Boisman-2 site, burial set 1, grave 1-5. Upper part of skeleton with harpoons near the head, bone fish-hook, and long polished points.
Fig. 12 – Site de Boisman-2, groupe de sépultures 1, sépulture 1-5. Partie supérieure du squelette avec le dépôt de harpons, d'un hameçon en os et de longues pointes polies près de la tête du défunt.

points or deadly blows to the head. Some of them could be interpreted as the result of inter-tribal conflicts, while others have an unusual disposition (inside the skull, in vertebrae), and may indicate ceremonial death (Tabarev, 2009).

– Oyster shells as a special covering for the burials. About 90% of all the shells are oyster shells. They were used for covering graves and, later, provide evidence of regular feasts with the consumption of special (tasty, high-protein) food. Such food types are typical of the ceremonies devoted to ancestors with high social position and status, for people who contributed significantly to tribal life (Tabarev, 2007).

– Shell mounds as an early example of monumental architecture. At the present time, it is extremely difficult to reconstruct the initial form and shape of the Boisman-2 shell mound as it was deformed by the humid climate and vegetation. However, the impressive size of the shell mound (encompassing an area about 600 m^2 and 2 m high) points to considerable construction efforts made by a large group of people. Systematic observation by North American archaeologists of the series of Archaic period shell mounds in the south-eastern United States (Florida, South Carolina, Georgia, Louisiana) led them to the logical conclusion that many mounds were built according to a distinctive plan with intentional geometric forms (circles, semi-circles; Anderson, 2014). This does not mean that all shell mounds should be recognized as monumental structures, but that some of them (especially those with burials) definitely evoke the status of Neolithic architecture.

All these facts, from our point of view, enable us to interpret the Boisman-2 site as a tribal elite necropolis with traces of seasonal feasts in a sacred place, characterized by the consumption of special food (oysters; Tabarev, 2007 and 2011).

In spite of intensive research, Boisman culture still raises a number of questions. Some specialists, impressed by the rich material complex of the Boisman-2 site burials and evidence of developed Boisman economy (sea coast fishing, hunting and gathering), consider the Boisman culture (and the Jomon culture on the Japanese Archipelago) as examples of 'Far Eastern Neolithic civilization'. We are open to this hypothesis but prefer to wait until more Boisman burial sites are discovered and excavated before expanding upon it.

Further perspectives

Today, there are several prospective directions for further investigations of Boisman culture. Some of them are currently in progress and others are planned in the near future.

First of all, it is important to mention the new stage of research into Boisman sites in the Primorsky krai. One of the most interesting discoveries was made in 2011 on Russky Island (right in front of Vladivostok; fig. 13). Two remarkable locations with typical Boisman pottery were found on the coast, one of which (Boyarin-6 site) is a large shell mound. Excavations at the site began in 2013. Thanks to new survey methods, including

Fig. 13 – Location of sites mentioned in the text. 1: Boisman-2 site, coast; 2: Boyarin sites, Russky Island.
Fig. 13 – Localisation des sites mentionnées dans le texte. 1 : site de Boisman-2, côte ; 2 : sites de Boyarin, île de Rousski.

❶

❷

Fig. 14 – The excavations carried out at the Boyarin-6 site during August 2014. 1: view of the camp and the site; 2: excavations of the shell mound containing artefacts assigned to the Boisman culture.
Fig. 14 – Les fouilles entreprises dans le site de Boyarin-6 en août 2014. 1 : vue du campement et du site ; 2 : fouille de l'amas coquiller incluant des artefacts attribués à la culture de Boismanskaya.

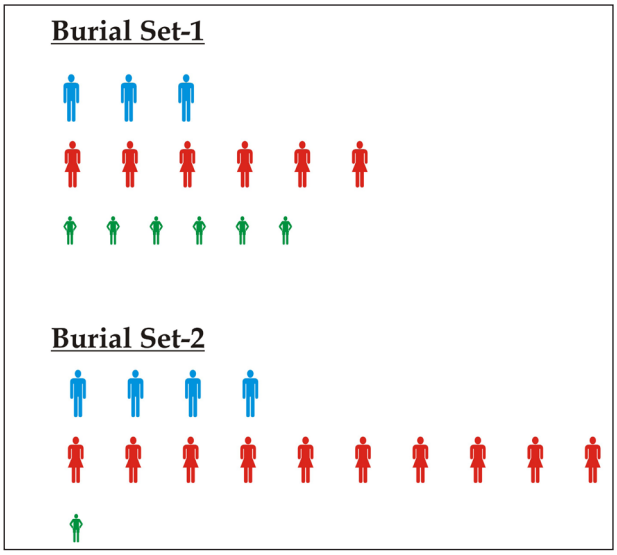


Fig. 15 – Number of males (blue), females (red), and children/teenagers (green) in burial sets 1 and burial set 2.
Fig. 15 – Nombre des hommes (bleu), des femmes (rouge) et des enfants-adolescents (vert) dans les groupes de sépultures 1 et 2.

a high-resolution magnetometer, it is now possible to accurately detect shell distribution and concentration. Several test pits established the stratigraphy and cultural sequence of the shell mound. The upper part includes some archaeological materials from the Late Neolithic and Early Iron Age whereas the main part was made by Boisman culture populations (fig. 14). Typical artefacts in stone (points, scrapers, knives) and bone (harpoons, needles, points, hooks), along with ceramic vessels, were uncovered during the 2013–14 seasons. So far, there are no burials or separate anthropological remains but abundant fauna. In addition to marine fauna, there are also multiple remains of pigs and dogs. Further studies will clarify whether these are domesticated or hunted animals.

The most important aspect of these new sites is that they are located on the island which was never connected to the coast. Taking into consideration the high sea level during the Holocene optimum, the only way to reach Russky Island was to cross the 3 km distance on a boat or raft. Therefore, the Boisman culture was not only coastal; populations also used watercraft to reach nearby islands.

Another promising avenue of research is the genetic investigation of Boisman people. As part of a special agreement with Harvard University (USA), extensive series of samples (almost all the individuals from burial sets 1 and 2) were sent to the USA for detailed DNA analysis. This may provide the key to very important information, not only as regards the position of Boisman populations in the broad genetic picture of the Far East, but also for understanding links between individuals buried in separate graves and within burial sets (fig. 15). In addition to Boisman materials, several other samples (Late Neolithic, Early Iron Age) will be analysed in Harvard in order to determine whether the Boisman genetic code is detected in subsequent populations.

We have high expectations concerning the possibilities of developing comparative archaeological investigations in the Pacific and Eurasia. In the Pacific Basin we are currently cooperating with colleagues from Ecuador (South America) and in 2014 joint excavations at Real Alto will begin. Real Alto is the most informative Valdivia culture site (5500–3500 BP), with a full sequence (comprising all eight stages) of cultural development, the earliest dates for pottery on the continent, evidence of ceremonial and ritual activities (special structures and tribal elite burials), as well as a wide range of faunal remains. This culture illustrates the transition from hunter-gatherer and fishing activities to early agriculture (Marcos, 1988).

In turn, the Eurasian perspective could provide interesting comparisons of burial practices in coastal Mesolithic-Neolithic cultures, with emphasis on social aspects. Even a brief overview of such cultures in Sweden, France, Portugal and Spain shows that they present many similar features and remarkable analogies. We appreciate that this is a major scientific challenge and we will be happy to communicate and to cooperate with colleagues in Pacific and Eurasian regions.

Acknowledgements: This research was carried out with the support of the Strategic Academic Unit Research and Education Center for Asia-Pacific Studies (SAU RECAPS), Far Eastern Federal University, Vladivostok. We would also like to express our gratitude to the organizers of the international meeting 'Archaeology of Maritime Hunter-Gatherers: from Settlement Function to the Organisation of the Coastal Zone' (April, 2014, Rennes, France) for the chance to present some of our research results and to publish an enlarged version of that presentation. Special thanks go to all our Russian and foreign colleagues who were and are involved in the investigations of Boisman materials.

BIBLIOGRAPHICAL REFERENCES

Anderson D. G. (2014) – Paleoindian and Archaic Periods in North America. in C. Renfrew and P. Bahn (eds.), *The Cambridge World Prehistory*, 2. *East Asia and The Americas*, Cambridge, Cambridge University Press, p. 923–42.

Batarshev S. V., Popov A. N. (2008) – Sergeevka-1 Neolithic Site in the Khanka Plain, and the Typology of Middle Neolithic Sites in Primorye, *Archaeology, Ethnology and Anthropology of Eurasia*, 35, 3, p. 2–13.

Çilingiroğlu Ç. (2005) – The Concept of 'Neolithic Package': Considering its Meaning and Applicability, *Documenta Praehistorica*, 32, p. 1–13.

Cressman L. S. (1933) – *Contributions to the Archaeology of Oregon. Final Report on the Gold Hill Burial Site*, Eugene,

University of Oregon (University of Oregon Publications, 4, 3; Studies in Anthropology Bulletin, 1), 24 p.

Goldschmidt W. R., Driver H. E. (1940) – *The Hupa White Deerskin Dance*, Berkeley and Los Angeles, University of California Press (University of California Publications in American Archaeology and Ethnology, 35, 8), p. 103–41.

Kuzmin Y. V. (2006) – Chronology of the Earliest Pottery in East Asia: Progress and Pitfalls, *Antiquity*, 80, 308, p. 362–71.

Kuzmin Y. V. (2010) – The Origin of Pottery in East Asia and its Relationship to Environmental Changes in the Late Glacial, in A. J. T Jull (ed.), *Proceedings of the 20th International Radiocarbon Conference*, proceedings of the international conference (Kona, 31 May–5 June 2009), Tucson, University of Arizona (*Radiocarbon*, 52, 2–3), p. 415–20.

Lutaenko K. A., Zhushchikhovskaya I. S., Mikishin Y. A., Popov A. N. (2007) – Mid-Holocene Climatic Changes and Cultural Dynamics in the Basin of the Sea of Japan and Adjacent Areas, in D. G. Anderson, K. A. Maasch and D. H. Sandweiss (eds.), *Climatic Change and Cultural Dynamics. A Global Perspective on Mid-Holocene Transition,* London, Academic Press, p. 331–406.

Marcos J. G. (1988) – *Real Alto : la historia de un centro ceremonial Valdivia*, Quito, Corporación Editora Nacional (Biblioteca Ecuatoriana de Arqueología, 4), 698 p.

Popov A. N. (2008) – Burial Assemblages of Boisman-2. A Stratified Site in Southern Primorye, *Archaeology, Ethnology and Anthropology of Eurasia*, 34, 2, p. 68–76.

Popov A. N., Tabarev A. V. (2008) – Neolithic Cultures of the Russian Far East: Technological Evolution and Cultural Sequence, *Turkish Academy of Sciences Journal of Archaeology*, 11, p. 41–63.

Popov A. N., Tabarev A. V., Uchiyama J. (2009) – International Archaeological Conference 'The Neolithic and Neolithization of the Sea of Japan Basin: Man and the Historical Landscape', Vladivostok, 17–18 March, 2008, *Archaeology, Ethnography, Anthropology of Eurasia*, 37, 1, p. 151–53.

Rust H. N. (1905) – The Obsidian Blades of California, *American Anthropologist*, 7, 4, p. 688–95.

Tabarev A. V. (2004) – Obsidian in the Neolithic of the Maritime Region, *Archaeology, Ethnography and Anthropology of Eurasia*, 17, 1, p. 2–6.

Tabarev A. V. (2006) – People of Salmon: Technology, Art and Ritual of the Stone Age Cultures, Russia Far East, in T. Kobayashi (ed.), *Archaeological Education of the Japanese Fundamental Culture in East Asia*, Tokyo, Kokugakuin University (21 COE Program Archaeology Series, 7), p. 111–24.

Tabarev A. V. (2007) – On Oysters and Archaeologists (the Notion of 'Aquaculture' in Far Eastern Archaeology), *Archaeology, Ethnology and Anthropology of Eurasia*, 32, 4, p. 52–59.

Tabarev A. V. (2009) – On the Dark Side of the Neolitisation: Evidences of Violence in the Neolithic Burials at Boisman-2 Site, Russian Far East, in J. Uchiyama, K. Lindström, C. Zeballos and O. Nakamura (eds.), *Neomap. Neolitisation and Modernisation: Landscape History on East Asian Inland Seas*, Kyoto, Nakanishi printing (Neomap Interim Reports, 2008), p. 131–38.

Tabarev A. V. (2011) – Blessing the Salmon: Archaeological Evidences of the Transition to Intensive Fishing in the Final Paleolithic, Maritime Region, Russian Far East, *in* N. F. Bicho, J. A. Haws and L. G. Davis (eds.), *Trekking the Shore. Changing Coastlines and the Antiquity of Coastal Settlement*, New York, Springer (Interdisciplinary Contributions to Archaeology), p. 105–16.

Tabarev A. V. (2014) – The Later Prehistory of the Russian Far East, in C. Renfrew and P. Bahn (eds.), *The Cambridge World Prehistory*, 2. *East Asia and The Americas*, Cambridge, Cambridge University Press, p. 852–69.

Woodruff C. E. (1892) – Dances of the Hupa Indians, *American Anthropologist*, 5, 1, p. 53–62.

Alexander N. Popov
Far Eastern Federal University,
ul. Sulkhanova 8,
RU – 690950 Vladivostok
poparchaeo@mail.ru

Andrey V. Tabarev
Institute of Archaeology and Ethnography,
17, Ac. Lavrentieva av.,
RU – 630090 Novosibirsk
olmec@yandex.ru