

**ROUTES BETWEEN THE SEAS:
BALTIC-BUG-BOH-PONT
FROM THE 3RD TO THE MIDDLE
OF THE 1ST MILLENNIUM BC**

**Yuriy Boltryk
Yuriy M. Brovender
Katerina P. Bunyatyan
Justyna Cieszewska
Janusz Czebreszuk
Sylwester Czopek
Kirill V. Gorbenko
Juriy S. Grebennikov
Marcin Ignaczak
Lubov S. Klochko
Viktor I. Klochko
Vitaliy Konopla
Aleksander Koško
Mykola N. Kryvaltsevich
Jerzy Libera
Sergey D. Lysenko
Svetlana S. Lysenko
Jan Machnik
Przemysław Makarowicz
Miroslaw Makohonienko
Vitaliy V. Otroshchenko
Jarosław Rola
Valery Samolyuk
Jarosław Sobieraj
Paulina Suchowska
Marzena Szmyt
Katarzyna Ślusarska
Witold Tyborowski**

BALTIC-PONTIC STUDIES

V O L U M E 14 • 2009

© Copyright by B-PS and Authors
All rights reserved

Cover Design: Eugeniusz Skorwider

Linguistic consultation: Ryszard J. Reisner, Piotr T. Żebrowski

Printed in Poland

Computer typeset by PSO Sp. z o.o. w Poznaniu

Druk i oprawa: Zakłady Poligraficzne SERIGRAF w Suchym Lesie

CONTENTS

EDITORS' FOREWORD	7
INTRODUCTION	9
Aleksander Koško, Viktor I. Klochko, TRANSIT ROUTES BETWEEN THE BALTIC AND BLACK SEAS: EARLY DEVELOPMENT STAGES – FROM THE 3RD TO THE MIDDLE OF THE 1ST MILLENNIUM BC. AN OUTLINE OF RESEARCH PROJECT	9
PART I – ‘NATURAL ROUTES’ OF THE BORDERLAND BETWEEN THE EAST AND WEST OF EUROPE - PROGRAMMES OF ENVIRONMENT (FIELD) IDENTIFICATION	19
Mirosław Makohonienko, NATURAL SCIENTIFIC ASPECTS OF PREHISTORIC AND EARLY HISTORIC TRANSIT ROUTES IN THE BALTIC-PONTIC CULTURAL AREA	19
Jarosław Rola, CONSTRUCTION ISSUES IN THE NORTH-WEST (CENTRAL EUROPEAN) SECTION OF BALTIC-PONTIC INTER-REGIONAL ROUTES: THE NOTEĆ RIVER CROSSING IN ŻUŁAWKA MAŁA – MUCH ADO ABOUT NOTHING?	72
PART II – RAW MATERIAL RESOURCES OF THE BALTIC-PONTIC ARE	87
Janusz Czebreszuk, WAYS OF AMBER IN THE NORTHERN PONTIC AREA. AN OUTLINE OF ISSUES	87
Yuriy M. Brovender, COPPER ORES OF THE NORTHERN PONTIC REGION AS RAW MATERIALS FOR PRODUCTION ACTIVITY IN THE PALEOMETAL AGE (BASED ON THE STUDY OF THE KARTAMYSH ORE MINING AND METALLURGY COMPLEX)	103
PART III – STRATEGIES OF LONG-DISTANCE TRANSPORT AND CHOROGRAPHIES OF THE NORTHERN PONTIC AREA SHARED BY THE SOCIETIES OF ANCIENT CIVILIZATIONS IN ANATOLIA, MESOPOTAMIA AND MAINLAND GREECE	124
Witold Tyborowski, COMMUNICATION ROUTES AND OVERLAND TRANSPORT MEANS IN WESTERN ASIA IN THE BRONZE AGE (4TH TO 2ND MILLENNIUM BC)	124
Paulina Suchowska, COMMUNICATION SPACE OF THE NORTHERN PONTIC AREA AS VIEWD BY AEGEANS	156

Justyna Cieszewska, GREEK CHOROGRAPHY OF LAND ROUTES IN NORTH-WESTERN PONTIC AREA	176
PART IV – SHORT AND LONG MIGRATIONS BY PEOPLES OF THE LANDS BETWEEN THE SEAS IN THE 4TH TO THE TURN OF THE 3RD MILLENNIUM BC: FROM FORAYS TO MAPS OF ITINERARIES	
Aleksander Koško, Marzena Szmyt, CENTRAL EUROPEAN LOWLAND SOCIETIES AND THE PONTIC AREA IN THE 4TH-4TH/3RD MILLENNIUM BC	191
Jan Machnik, SHORT AND LONG-DISTANCE PASTORAL JOURNEYS ALONG ANCIENT UPLAND ROUTES IN EUROPE IN THE 3RD MILLENNIUM BC	214
Jerzy Libera, Jarosław Sobieraj, Vitaliy Konopla, SOME LATE NEOLITHIC STONE AXES AS POTENTIAL MARKERS OF CULTURAL EXCHANGE IN BALTIC-PONTIC INTER-REGIONAL ROUTES	223
PART V – EARLY LONG-DISTANCE ROUTES BETWEEN THE SEAS: BALTIC-BUG-BOH-PONT ROUTE AND CONTEXTS OF NEIGHBOURHOOD ROUTES (THE 3RD TO THE MIDDLE OF THE 1ST MILLENNIUM BC)	
Marzena Szmyt, EASTERN EUROPEAN DESTINATIONS OF CENTRAL EUROPEAN CULTURAL PATTERNS. THE CASE OF GLOBULAR AMPHORA CULTURE (END OF THE 4TH – MIDDLE OF THE 3RD MILLENNIUM BC) ...	232
Katerina P. Bunyatyan, Valery Samolyuk, MANIFESTATIONS OF MIDDLE DNEIPER CULTURE IN THE VOLYN TERRITORY AND THE ISSUE OF ANCIENT ROUTES	252
Viktor I. Klochko, Aleksander Koško, THE SOCIETIES OF CORDED WARE CULTURES AND THOSE OF BLACK SEA STEPPES (YAMNAYA AND CATACOMB GRAVE CULTURES) IN THE ROUTE NETWORK BETWEEN THE BALTIC AND BLACK SEAS	269
Przemysław Makarowicz, BALTIC-PONTIC INTERREGIONAL ROUTES AT THE START OF THE BRONZE AGE	302
Sergey D. Lysenko, Svetlana S. Lysenko, GROUND COMMUNICATIONS OF THE EASTERN AREA OF THE TRZCINIEC CULTURE CIRCLE	338
Katarzyna Ślusarska, HORDEEVKA – IMPLICATIONS OF ARCHEOLOGICAL RESEARCH ON EXTRA-REGIONAL RELATIONS (CULTURES OF THE BOH-BUG RIVERS BASIN)	368
Kirill V. Gorbenko, Yuriy S. Grebennikov, THE ‘DYKYI SAD’ FORTIFIED SETTLEMENT AS A UNITING LINK IN THE CONTEXT OF ECONOMIC,	

POLITICAL AND CULTURAL RELATION OF 1200-1000 BC (THE BALTIC SHORE, THE PONTIC REGION AND THE MEDITERRANEAN)	375
Marcin Ignaczak, THE ROLE OF BALTIC-BLACK SEA ROUTES IN THE DEVELOPMENT OF LUSATIAN CULTURE SOCIETIES IN THE DECLINE BRONZE AND EARLY IRON AGES	391
Yuriy Boltryk, PONTIC TRADE ROUTES – BALTIC SEA AREA AS A MAP OF SCYTHIAN EXPANSION	402
Lubov S. Klochko, AMBER IN GARMENTS OF POPULATIONS OF SCYTHIA (WAYS AND FORMS OF RECEPTION)	415
PART VI – ROUTES BETWEEN THE SEAS - RESEARCH PERSPECTIVES	439
Mykola N. Kryvaltsevich, THE TERRITORY OF BELARUS IN THE SYSTEM OF COMMUNICATION ROUTES OF 3000 – EARLY 2000 BC	439
Vitaliy V. Otroshchenko, THE BRONZE AGE COMMUNICATION ROUTE SYSTEM IN THE NORTHERN PONTIC AREA	462
Sylwester Czopek, THE ROLE OF THE DNIESTER ROUTE – THE SAN RIVER IN THE BRONZE AND EARLY IRON AGES	475
References	490
List of Authors	566

Editor's Foreword

As regards the identification of the early forms of Europe's long-distance routes, the area lying between the Baltic and Black seas can be said to be one of relative neglect. Specifically, little research has been devoted to the development stages of the area's socio-cultural map, i.e. to neighbourly forays, itineraries, routes (of varied continuity, range and transport technique), stable segments of roads leading to water crossings, networks of fords and the communication channels running along watersheds. The foremost issue, at present one of great difficulty with respect to a study embracing the whole region in question, is the cultural context of these innovations and the related mechanisms that saw their creation in regard to the socio-economic basis and ritual-epistemological nature of ancient peoples in these regions.

The study by Marija Gimbutas [Gimbutas 1965] of 'amber routes', joining the west and east of Europe, may be considered the first attempt to tackle the issue of the region's early communication channels and was accordingly referred to in the analyses of the distribution of stone 'fluted maces', regarded as hypothetical markers of Baltic-Pontic routes [Koško 2001; 2002]. Generally, this conceptual leaven can be said to have provided broader intellectual stimuli for the international academic community of 'Archaeology Bimaris'. The turning point in the nascent study of ancient routes has been thus given a clear framework: an inter-university and interdisciplinary discussion (see the Poznań-Obrzycko symposium *Routes Between the Seas: Baltic-Bug-Boh (Southern Bug)-Pont* held in October 2008).

The papers included in this volume are a partial record of the discussion. The intentional selectiveness here is seen therefore in the conscious limitation of the scope of papers ('piecemeal' treatment of linguistic or ethnological and anthropological analyses). Moreover, there is a special focus on one of the inter-regional routes, namely the Baltic-Bug-Boh (Southern Bug)-Pont, or more specifically, its early evidence (generally speaking, prior to – widely known to the academia – its use in the times of Goth migrations).

Editorial comment

1. All dates in the B-PS are calibrated [BC; see: Radiocarbon vol. 28, 1986, and the next volumes]. Deviations from this rule will be point out in notes [bc].
2. The names of the archaeological cultures and sites are standarized to the English literature on the subject (e.g. M. Gimbutas, J. P. Mallory). In the case of a new term, the author's original name has been retained.
3. The spelling of names of localities having the rank of administrative centres follows official, state, English language cartographic publications (e.g. *Ukraine, scale 1 : 2 000 000*, Kiev: Mapa LTD, edition of 1996; *Rèspublika BELARUS', REVIEW-TOPOGRAPHIC MAP*, scale 1:1 000 000, Minsk: BYELORUSSIAN CARTOGRAPHIC AN GEODETIC ENTERPISE, edition 1993).
4. As far as names of administrative units in Polish, Ukrainian, Belarusian and English are concerned, a convention has been adopted that województwo = oblast = region and powiat = raion = district.

Witold Tyborowski

COMMUNICATION ROUTES AND OVERLAND
TRANSPORT MEANS IN WESTERN ASIA
IN THE BRONZE AGE
(4TH TO 2ND MILLENNIUM BC)

1. INTRODUCTION

The origins of communication routes reach back to the most distant past of the Near East and are related to the rise of trade, which was the most important factor in laying out the course of roads in antiquity. The routes connected areas rich in raw materials to populous lands, where receptive markets were. However, the buyers had to have a surplus of their products to be able to 'pay' for imported goods. Hence, stable trade relations are characteristic of the cultures that are sufficiently rich and developed. Both conditions were fully met by Mesopotamia and other regions of the Near East in the Copper and Bronze Ages.

Especially in the case of southern Mesopotamia, considered to be the cradle of state civilization, trade and import of basic raw materials was necessary for the development of local societies because the region did not have any deposits of ores or rocks, nor any timber resources of its own [Potts 1997]. To supply them there, there had to emerge a system of exchange, taking advantage of roads and communication routes. We can speak of stable trade in the Near East beginning at least with the middle of the 4th millennium BC when a state civilization rose there which needed a continuous supply of raw materials from outside to develop. It was then that the archaic state of Uruk emerged in the south and developed economic ties with many lands of central and western Asia, and Egypt. Thus, as early as the 4th

millennium BC, different regions of the Near East were joined by a network of communication routes, starting a vigorous exchange of goods, accompanied, certainly, by ideas, among peoples inhabiting the regions. In the archaeology of Mesopotamia, the Uruk period saw the beginning of the Bronze Age that engulfed then most of the ancient East. In many respects this is a watershed as many important developments in material and spiritual culture, including organized trade and writing, originated in this very period [Leick 2001: 40-48].

Vigorous trade, started in the 4th millennium BC, was typical of the region's economy until the modern times when the development of transport means and the flood of goods manufactured elsewhere disturbed it permanently. The present analysis covers the period of the Bronze Age, which continued in the Near East from the middle of the 4th almost until the end of the 2nd millennium BC. Its end falls on the 13th century BC or basically the decline of the age. It was then, in the so-called Amarna Period, that the political situation stabilized as an order that may be called an alliance of powers. It provided favourable conditions for the circulation of goods, which is characteristic of the penultimate phase of the Late Bronze Age in western Asia. The process is recorded in the Amarna Letters, archives of Boghazköy and other dispersed records [van Koppen *et al.* 2006: 134-181]. The basic source of data relied on here, at least until the middle of the 3rd millennium BC, is archaeological excavations as satisfactory written records appear rather late. Texts coming from the Early Bronze Age may only serve as a secondary source, supplementing archaeological data.

The major aim of the first part of this paper is to trace trade routes under changing political conditions and to show to what degree political developments influenced trade and the course of roads. This is important inasmuch as in the course of the two thousand years, the Near East witnessed continual ethnic, political and economic changes that had an impact on the course of trade routes and the circulation of goods. Another important question that shall be taken up here is overland transport means that were used in travelling along the routes. Taking up this question is important inasmuch as more recent archaeological discoveries and text publications cast doubt on the traditional picture where a dominant role was given to boats and, secondly, to beasts of burden, without allowing for any alternative to them. It appears that special attention is deserved by other means of overland transport next to donkeys. Until recently they have been marginalized by scholars studying trade and long-distance exchange [Klengel 1979]. The following analysis shall not include Egypt, which, admittedly, witnessed successive stages of intensive development in periods contemporaneous to those experienced by the lands of western Asia, but it prospered in a slightly different geographical and political context. A closer historical analysis shows that joining it to the axis of Mesopotamia, Syria, Anatolia – the major regions of the Orient – does not seem expedient.

2. THE COURSE OF ROUTES IN THE NEAR EAST IN THE BRONZE AGE

2.1. FROM THE URUK PERIOD TO THE FALL OF SUMERIAN CITY-STATES

The evidence of trade of the Uruk culture, whose major centres were located on the lower Euphrates and Tigris rivers, is quite spectacular. It points to the economic ties of Sumer both with the lands lying in its immediate vicinity – on the Persian Gulf, the middle Tigris and Elam in the east – as well as those further afield such as Syria and Turkey in the west. Still another group is formed by distant lands lying on the southern shores of the Persian Gulf and in central Asia such as Afghanistan, eastern Iran and India. These remote, almost mythical lands in the south and east appear as sources of raw materials for Sumer in the texts of the 3rd millennium BC and are called Dilmun (Bahrain), Makkan (Oman), Meluhha (Indus drainage), Aratta (Afghanistan) and Kimash (Fars Mts.). Roads running east from southern Mesopotamia are evidenced by the import of lapis lazuli, which was brought to Sumer from Afghanistan along two routes. A more important southern one ran crossing into India (Mohendjo-Daro, Harappa), across southern Iran (Sahr-i Socha, Tepe Yahya), towards Elam (Susa) and further on along the coast of the Persian Gulf to Mesopotamia. This course of the route is borne out by Uruk pottery found in the cities of southern Iran (Tepe Yahya) [Klengel 1979: 26; Postgate 2005: 208-209]. The other, northern route, crossed the plains of north-eastern Iran (Tepe Hissar) in the direction of the central Zagros Mountains and the Diyala Valley [Klengel 1979: 29; Astour 1995: 1403-1404; Postgate 2005: 208-209]. Next to the land routes, there was a very important seaway along the coast of the Indian Ocean and the Persian Gulf, via Bahrain (anc. Dilmun), to Uruk along which goods from the east and south were shipped to Sumer. The existence of the seaway is shown by many finds on Bahrain, which could have been an entrepôt used by this trade, and a strong presence of the land of Dilmun in royal inscriptions and mythological texts from the 3rd millennium BC [Klengel 1979: 36-40; Astour 1995: 1403; Bass 1995: 1421-1422; Reiter 1997: 155; Postgate 2005: 209]. Scholars agree that next to lapis lazuli also silver and copper were originally brought to Mesopotamia from Iran, from the Fars Mountains (Kimash), and Oman (Makkan) [Meissner 1920: 347-348; Leemans 1960: 117; Astour 1995: 1405; Yoffe 1995: 1391; Reiter 1997: 78, 152, 209; Postgate 2005: 218]. The goods shipped east in return for these metals included mostly grain, oil and pottery. There is no doubt that thanks to huge surpluses of agricultural crops, especially corn, they were among chief exports throughout the history of ancient Mesopotamia [Kramer 1977; Kapełuś, Kropiwnicka 2003: 11-28]. It is possible that apart from these goods also textiles were shipped there. Southern Mesopotamia was famous for its textiles at that time and later as well [Larsen 1976: 87-88; Postgate 2005: 212-213]. Archa-

eological finds and a clear trace in the literary tradition testify to the fact that the trade was quite vigorous and long-lasting [Postgate 2005: 211; Kramer 1977: 62-64].

For a long time a shroud of mystery covered the share of northern Mesopotamia in the development and trade of the Uruk culture. On the one hand, the geographical unity of the north with Sumer, in particular navigable rivers, suggested that the country called Subartu by the Sumerians, must have played a significant role in trade already at that time. On the other hand, no evidence of this was found in the texts of the 3rd millennium BC, which are usually considered reliable for an earlier period as well [Reiter 1997]. In principle, they are silent on the point of trade with the north. The gap, however, was made up for by archaeological discoveries in the valley of the middle and upper Euphrates and Tigris rivers. The discoveries unearthed many settlements, displaying material culture very similar or even identical to that of the Uruk culture. The most important of them include Habuba Kabira, Qraya, Birecik, Jebel Aruda in the drainages of the Euphrates and Khabur rivers, Tell al-Hajj in the Taurus Mountains and Nineveh on the upper Tigris. Some scholars suggest that some of them can be simply considered colonies of the Uruk culture, which would testify to a direct penetration of the north by Sumer at so early a time [Bieliński 1991]. The reason for this, next to the access to a quite convenient waterway, supposedly was the abundance of raw materials in the Amman and Taurus mountains, and in the Transcaucasia. The goods imported from distant areas lying in present-day Syria and Turkey could have included gold, bronze, copper, timber, and some kinds of rocks. Among the last-mentioned category was obsidian, which is well documented [Kelly-Buccellati 1990: 120; Reiter 1997: 152; Postgate 2005: 207]. The most spectacular find testifying to such exports from the Transcaucasia and Taurus Mountains to southern Mesopotamia involves a deposit of quern stones in Yarim Tepe, northern Mesopotamia. In the opinion of the discoverers, the stones were exports shipped south and testify to vigorous trade in such goods in the 4th millennium BC [Postgate 2005: 207]. The northern centres named above lie for the most part in the drainage of the upper Euphrates and Tigris, which must have played the role of major communication arteries joining Uruk to Syria and Anatolia (Karanovo VI) [Thisen 1993: 220]. The goods that were shipped north from Sumer may have included grain, textiles and some luxury articles such as seals [Leemans 1960: 116; Yoffe 1995: 1392; Postgate 2005: 208]. Lying on the route running north from Sumer, Syria could have mediated an exchange between southern Mesopotamia and Egypt, where the impact of the Uruk culture is clearly observable in the 4th millennium BC. The route from Syria to Egypt could have crossed the sea via Byblos, staying in contact with Egypt since ca. 3000 BC, or via Palestine, where traces of trade with Uruk have also been found [Bard 2000: 62-64, different view by Grimal 2005: 38]. Hence, it can be seen that beginning as early as the 4th millen-

nium BC, southern Mesopotamia was crisscrossed by communication and trade routes. Forming a hub where routes from many distant lands converged and crossed one another, the cities of Sumer could have been a place where merchants from different parts of Asia exchanged their wares. As far as northern Mesopotamia is concerned, in the 4th millennium BC there are no traces of east-west roads which would join the upper Tigris drainage to Syria and bypass the south. Thus, southern Mesopotamia with the Uruk culture was a hub of these routes and trade.

Of course, outside southern Mesopotamia there were cities of local significance. Recent discoveries show that the development of urban civilization can be observed as early as the 4th millennium BC in Anatolia, too. It may have been propelled by metallurgy because, owing to rich ore deposits, in particular of copper, and timber resources, the cities of Asia Minor began to supply these raw materials to neighboring countries already at that time. Speaking of metal, originally it was a natural alloy, the so-called arsenical bronze, which was delivered to Cyprus and the Cyclades [Muhly 1977: 75; Reiter 1997: 290; Śliwa 1997: 49-51; Sahoglu 2005: 340; Webb *et al.* 2006: 273; 276]. The inception of the process, however, is rather obscure and, except for Arslantepe and Kurban Hüyük, no significant evidence of it has been found [Mellaart 1982: 9; Śliwa 1997: 41]. This early stage of development of Anatolian cities did not last very long anyway as it was interrupted by the massive migrations of Proto-Hittite populations from the east. However, already ca. 2800/2700 BC, a network of new cities developed there which marked another stage in the history of Anatolia. From then on, it became an important partner in trade with adjoining countries.

The crisis of the Uruk culture that affected southern Mesopotamia ca. 3100/3000 BC must have had an adverse impact on trade contacts and exchange among the various lands of the whole Orient. It was then that Uruk colonies in Syria collapsed that had hitherto provided communication between southern Mesopotamia and Egypt; traces of Sumerian influence there break off abruptly then [Astour 1995: 1406; Bard 2000: 65-66]. A decline was suffered also by colonies and towns cooperating with Uruk on the upper Khabur and Tigris rivers. Obviously, a limited economic exchange must have continued because in the Jemdet Nasr period following Uruk and the Early Dynastic Period a slow development of many Sumerian cities is observed, leading to the emergence of city-states. Everything points to the fact that Syria avoided the crisis of the turn of the 4th millennium BC and entered the period of prosperity of local urban centres. The first stage of the process is evidenced chiefly by the pottery of the region which appeared in Palestine, western Mesopotamia, Cilicia, Anatolia and even as far as the Diyala River Valley, east of the Tigris [Ławecka 2006: 180; Koliński 2007a: 110]. In effect, this period of the Early Bronze Age in Syria is sometimes called 'the period of urban culture development' [Śliwa 1997: 142-143]. In time, the centre of the region shifted

to Ebla around which Syria's all economy and politics had concentrated since the middle of the 3rd millennium BC [Milano 1995: 1223]. Ebla's heyday is dated to 2500-2300 BC, the period from which come records of its international politics in northern Mesopotamia and rich tombs. The latter produced Egyptian vases bearing the names of Khephren (4th Dynasty) and Teti I (6th Dynasty) [Klengel 1979: 62-63; Śliwa 1997: 280; Olbryś 2007: 100-101]. Next to Ebla, the period saw the rise of other cities such as Halab, Qatna, Hamat, Emar, Haçor as well as Byblos and Ugarit on the Mediterranean coast [Salles 2001: 212-215; Olbryś 2007: 100-101]. Slightly less intensive but clearly visible, a period of growth on the upper Khabur River in northern Mesopotamia was marked by the rise of important urban centres such as Tell Brak, Tell Leilan, and Tell Mozan [Milano 1995: 1220; Koliński 2007b: 358]. On the upper Tigris, Hamazi, known from the Sumerian King List, grew then as well as Nineveh and Tell Taya, which are documented by texts and archaeological data [Ławecka 2006: 84-87]. The rise of Syrian centres brought about a new trade route from the Diyala River Valley to Syria via Nineveh, the upper Khabur and Balikh rivers. It was an extension of the lapis lazuli route from Afghanistan along which the mineral and tin were imported now to Ebla and Qatna [Leemans 1960: 123; Klengel 1979: 63-64; Astour 1995: 1406]. An arm of the route extended from the Diyala Valley through Mari on the middle Euphrates, and joined the route from Mesopotamia to Syria. This contributed to the rise of urban centres on the middle Euphrates, in particular Mari [Klengel 1979: 75; Muhly 1985: 281-282]. Continuous exchange of goods led different centres of both regions to start political cooperation as well, which can be seen in the relations of Ebla with Emar, Mari, Nagar and Kish [Astour 1995: 1406; Ławecka 2006: 178-179; Koliński 2007b: 354-355]. With time, these states, likewise the cities in the south, began competing for political domination in both Syria and Subartu [Liverani 1993: 5-9; Milano 1995: 1226-1227].

With the lapse of time, after the crisis of the turn of the 4th millennium BC, trade in southern Mesopotamia again gained momentum as new city-states, likewise Uruk earlier, could develop to a large extent by importing basic raw materials. The sophistication of material culture and trade in the first half of the 3rd millennium BC is evidenced by the discoveries at Ur. Among many hoards found in the city's so-called royal tombs are goods made of lapis lazuli imported from Afghanistan, metals (copper, bronze) from Anatolia, and gold and obsidian brought from the Transcaucasia [Leemans 1960: 116; Maxwell-Hyslop 1977: 85; Bieliński 1985: 365-366; De Ryck *et al.* 2005: 265; Ławecka 2006: 176-177]. In northern Mesopotamia, this is well illustrated by the discoveries at Tell Mozan of large amounts of ceramic and metal (bronze) vessels of local origin and dated to the same period. They suggest the existence there of advanced metallurgical centres which may have even been technologically ahead of those located in Anatolia [Kelly-Buccellati 1990: 122]. Slightly later texts from Lagash testify to contacts with Dilmun, Makkan

and Meluhha and speak of raids into Subartu, i.e. northern Mesopotamia [Leemans 1960: 116]. Therefore, it can be claimed that in the middle of the 3rd millennium BC trade in the Near East entered again a period of prosperity, which must have been a result of economic and political relations having stabilized throughout the region.

With regard to Anatolia, since the middle of the 3rd millennium BC its cities had begun to develop rapidly and established economic contacts with the Aegean, Transcaucasia and Mesopotamia. Among the leading ones were Hattusha, Kanesh, Tarsus, Arslantepe (Melid), Alaca Hüyük and Ikiztepe (Zalpa), some of which were at their heyday then [Klengel 1979: 103; Bryce 2005: 72; Zimmerman 2007: 29-30]. According to Sahoglu the development was propelled by advances in metallurgy following the discovery of large ore deposits in the Taurus Mountains already in the first half of the 3rd millennium BC [Reiter 1997: 288; Sahoglu 2005: 341]. The west of Asia Minor saw then the development of Troy, the second layer of which, falling on the period of 2500-2300 BC, represents a highly developed culture of a city-state. Its wealth is visible in multiple examples of jewellery and objects made of gold, silver and other precious metals found at the site. A study of pottery and other goods from Troy II indicates influence coming from northern Syria, the Transcaucasia, central Anatolia and the Balkans [Jansen 1995: 1224]. This means that the city could have lain at the crossroads of cultural influences radiating from the Balkans and Asia Minor. Communication routes, existing then in central and eastern Asia Minor, led from southern Anatolia across Cilicia (Tarsus) to Syria, and from eastern Anatolia (Alaca Hüyük, Kanesh) to the upper Euphrates Valley (Arslantepe) and south into Syria [Koliński 2007a: 112; Olbryś 2007: 101]. In the opposite direction, the routes stretched west from southern Anatolia and via Izmir and Troy reached Mainland Greece and the Balkans [Jansen 1995: 1224]. Among transported goods metal objects and pottery merit a mention. With regard to Anatolian influences in Thrace, Sahoglu claims that they were strong enough to speak of Anatolian settlements on the other side of the Dardanelles. The system of trade routes closely joining the two countries and enabling exchange that developed then Sahoglu calls 'Anatolian Trade Network' [Sahoglu 2005: 343-349]. Interestingly enough, the influences that were quite strong in the 3rd millennium BC weakened later as if ties between Europe and Asia had been broken off. The breaking off could have been caused by migrations induced by the Minoan culture, emerging in the Aegean Sea [Mee 1994: 139-141]. The instability of situation in the borderland between Asia Minor and the Balkans is seen in the frailty of successive development phases of Troy, specifically phases III-V, dated to 2300-1700 BC [Jansen 1995: 1125]. An important export commodity from Anatolia to the neighbouring countries, tin bronze superseded natural arsenical bronze in the middle of the 3rd millennium BC [Reiter 1997: 288].

2.2. THE AGE OF FIRST EMPIRES: AKKAD AND UR

A watershed in the development of communication routes and trade in the Near East is marked by the rise of the state of Sargon of Akkad at the turn of the 24th century BC. Already in the lifetime of its founder, it stretched from the Persian Gulf to Syria and possibly to the Anatolian frontier [Meissner 1920: 346; Michałowski 1993: 73; Kuhrt 1995: 48-50]. The founding of a uniform state occupying such a huge area must have intensified interregional exchange. What's more, the Akkadian Empire's sphere of influence encompassed some neighbouring countries such as Elam in western Iran and the coast of the Persian Gulf. This, in turn, gave access to the sources of raw materials, hence contributing to the development of economy and trade [Michałowski 1993: 75]. The empire was at its peak in terms of territory in the reign of Sargon's grandson, Naram-Sin, who not only expanded the empire's frontiers but also founded the second capital at Nagar (Tell Brak) in the north [Olbryś 2007: 102]. This must have intensified trade, especially in so-called Subartu. Archaeological excavations in the region showed that urban centres located there had surpassed Syria in development, which naturally shifted the economic centre of gravity in this direction [Milano 1995: 1226-1227]. For the stimulation of trade, it was important that Naram-Sin incorporated urban centres in northern Syria (Ebla, Armanum) and on the upper Tigris (Amida, present-day Diyarbakir, north of the Tur Abdin Mts.) into his empire. Thereby the Akkadian Empire overcame the region of Elazığ rich in raw materials, gaining access to many natural resources [Astour 1995: 1405; Ławecka 2006: 176-177]. It could have been then that a trade route was blazed from the middle Tigris to Anatolia, which played an important role in trade in the early 2nd millennium BC [Klengel 1979: 103-104]. In the records from this period there is a clear tendency to stress contacts with and imports from the lands lying in the south and east such as Dilmun, Makkan and Meluhha known from the oldest texts. The inscriptions of Akkadian rulers mention goods and merchants from these lands coming to the port at Akkad by water [Leemans 1960: 116; Michałowski 1993: 73]. Unfortunately, the period was on the whole rather short and an attempt to maintain Akkad's control over northern Mesopotamia ended in a fiasco several decades after Naram-Sin's death, although his successors tried hard to keep these areas under control [Koliński 2007a: 104]. Generally speaking, it must be admitted that in the times of the Akkadian dynasty, communication routes in Mesopotamia returned to their north-south course. It was a result of the domination of the south and the decline of Syria's cities, in particular Ebla, which was destroyed several decades before the invasion of Akkadians [Postgate 2005: 59, for different opinion see Milano 1995: 1228].

Still unsettled, the question of Sargon's empire's contacts with Anatolia continues to vex the researchers who disagree how far could the empire's influence reach.

The well-known Babylonian epic Sargon, the King of Battle, discovered in the archive at Tell el-Amarna, tells of the ruler's militarily punishing the Anatolian city of Purushanda for not showing respect to his envoys (merchants?). Scholars often thought this legend to be of little value as in their belief Sargon's empire could not reach that far with its influence [Michałowski 1993: 77-82; Oguchi 1999: 96; Postgate 2005: 216]. However, excavations in south-eastern Anatolia have shown that Purushanda and other urban centres of the region were rich and important enough to attract Sargon's or Naram-Sin's interest. The latter certainly crossed the border of present-day Turkey [Klengel 1979: 62; Bryce 2005: 6; Sahoglu 2005: 341-345]. The trade route from Akkad to Anatolia may have followed the Euphrates, deviating from it to call at Ebla and Halab (Armanum). Its other arm, since the times of Naram-Sin (latter half of the 23rd century BC), who laid waste to Syrian cities, may have passed through Nagar and Urkesh on the upper Khabur River and continued further north across the Mardin Pass [Koliński 2007b: 346].

After the collapse of the Akkadian empire towards the end of the 22nd century BC, a short dark period occurred related to the rule of the Gutians in the south. Then, both written records and archaeological evidence became poorer. A traditional belief held that the downturn that occurred then was caused by the migration of the Hurrians in the north and the Amorites in the west [Ławecka 2006: 33]. In more recent studies, a major cause is believed to have been a natural one, specifically, a huge volcano eruption that supposedly took place in the Aegean Sea ca. 2300 BC [Weiss, Courty 1993: 143-145; Koliński 2007b: 347-350]. Mass ethnic migrations and an economic downturn were unfavourable to trade, although it must have continued to a limited extent. This is borne out by the texts of Gudea of Lagash, dated to the 21st century BC, who mentions trade expeditions to Mari, lands on the upper Khabur, Elam and Dilmun [Leemans 1960: 124; Klengel 1979: 71; Astour 1995: 1402-1408]. The Lagash texts show that in the Khabur triangle there were many Hurrian kingdoms, which, in turn, indicates gradual stabilization. The information is significant inasmuch as Lagash did not combine economic penetration with political expansion, hence its trade ties may reflect real mechanisms operating in trade then [Klengel 1979: 67]. Once the Gutians, ca. 2050 BC, had been removed, Mesopotamia was dominated by the Monarchy of the III Dynasty of Ur. In many respects, the kingdom strove to continue the traditions of the Akkadian empire. The economic conditions, however, under which Ur rulers had to operate, were not as favourable as under the rule of the Akkadian dynasty. The reason was the failure of Ur rulers to subdue the areas on the middle and upper Euphrates and Khabur as well as Syria, which is being debated by scholars [Limet 1977: 55; Steinkeller 1987: 37-40; Stepień 2006: 44-46; Szeląg 2007: 8]. There is no doubt, though, that these lands were joined to the south by a communication route following the Euphrates and featured prominently in Ur trade, ranging as far as Byblos, which appeared then for the first time in Mesopotamian texts. Economic ties between Mesopotamia

and Anatolia were maintained through the use of routes following the Tigris and crossing the Khabur triangle, which is evidenced by the development of the region's urban centres [Koliński 2007b: 354-355].

The records of Ur's trade show that it was completely under the control of state administration and was tied to the kingdom's foreign policy. The kingdom of Ur was surrounded by allied and dependent states that supplied it with some goods as a tribute and certainly were open to trade [Stępień 2006: 64-68, 76-77]. What is also worth mentioning is a considerable internal integration of the kingdom's economic system, which is called a centralized or bureaucratic economy [Steinkeller 1987: 25-29; Szeląg 2007: 8-10]. The economic structure of the kingdom of Ur allows us to understand general mechanisms governing the then trade. It is known that the kingdom's regions paid different tributes to the monarchy; the south paid tax in grain or craft products whereas the north paid a levy of live animals [Steinkeller 1987: 31-37; Stępień 2006: 73-76; Szeląg 2007: 8]. This form of taxation can be explained by the fact that the animal tax imposed on the northern regions was cheaper to service as it did not require any means of transport; theoretically, however, goods from the north could be sent down the Tigris. The fact that it was not done could indicate that the waterway from the north was considered troublesome and was not used very often. This, in turn suggests, that still at the turn of the 3rd millennium BC, means of transport were too poor to support long-distance trade on a large scale. It must have been resorted to only for the purpose of importing the most necessary or valuable goods. The geographical shape of the kingdom of Ur made communication and trade routes run north-south and branch eastwards across the Zagros Mountains and westwards along the Euphrates. Economic texts from the times of the Ur III Dynasty concerning trade traditionally speak of merchants from Dilmun and Makkan, and lands located in Iran [Szeląg 2007: 3]. In this period Meluhha is not mentioned anymore in the context of trade and in the 2nd millennium BC Mesopotamian texts mention Dilmun only. This gives the impression of the shrinking of Sumerian and Akkadian merchants' trade horizons in the south. Some scholars suggest that this could have been a result of the growing importance of trade centres on Bahrain, which excavations on the island seem to suggest [Postgate 2005: 216-217].

As it has been said, the kingdom of Ur did not include western Mesopotamia nor Syria within its borders; the two countries were fragmented into independent political entities. Some of them were political satellites of the kingdom of Ur, which entailed economic cooperation as well. This age of Syrian history is poorly known because of the absence of any texts and paucity of data supplied by excavations. In the opinion of scholars, the region was going through a crisis then, known by the name of 'Amorite period', although some doubts are expressed whether the crisis was caused by the migration of this people as the infiltration by Amorites did not encompass urban areas [Olbryś 2007: 101]. Nevertheless, there must have flourished local trade in Syria at that time, although it is little known to us. What

evidence we have is the growth of cities on the Syrian coast that had economic ties with the eastern Mediterranean, Egypt and Anatolia. One should also mention Ebla here that prospered again then and regained its economic significance [Milano 1995: 1228]. Unfortunately, this phase in the city's development did not yield any texts that could tell us more about its political standing. With regard to Anatolia, it also found itself in the period of absorbing another wave of migrants. They were Hittites who did not, however, do much damage to the then political and economic systems especially in the eastern part of the region [Śliwa 1997: 40-41; Bryce 2005: 8-9]. A wave of new settlers coming to Asia Minor destabilized briefly its economy and disturbed its politics, especially in the centre and west of the peninsula. Yet, the texts from Kanesh dating to an only slightly later period show that there existed stable political and economic systems focused on the 'great king' of Purushanda and rulers of smaller states dependent on him [Postgate 2005: 214]. The system attracted potential trade partners, and merchants from Ur could successfully do business there. Although texts are silent on this point, such trade contacts are borne out by both pottery and tools made of Anatolian bronze quite frequently found in the south [Koliński 2007a: 109-110].

2.3. COMMUNICATION ROUTES OF THE 1ST HALF OF THE 2ND MILLENNIUM BC

After the fall of the kingdom of Ur in the middle of the 20th century BC, Mesopotamia broke up into a number of kingdoms and the next two centuries witnessed continuous struggle for reunification under the rule of one of pretenders. The area's most important kingdoms in the Old Babylonian period in the south were Isin, Larsa and Elam, with the last-mentioned taking an active role in the events in Mesopotamia. On the middle Euphrates the leading centres included Mari, while on the Tigris the most important ones were Eshnunna, Ekallate and Assur. In Syria, a clear hegemony was maintained by Halab, together with Ebla subordinated to it; another political power to be reckoned with was Qatna. To sustain economic development, these kingdoms had to procure important raw materials through trade, hence, despite political fragmentation and mutual hostilities, trade clearly thrived. This is borne out by many texts, including letters and itineraries, which shall be discussed below. The role of trade and the importance of routes is visible in intense competition for control over important route sections, e.g. the estuary of the Tigris and Euphrates rivers and urban centres in the south itself [Charpin 2004: 57-127]. Further north, the control of the middle course of the Tigris and the Diyala Valley was an important prize of war as it allowed the winner to control the Tigris route and access to the pass across the Zagros Mountains in the

direction of Iran [Charpin 2004: 129-152]. Still further north, on the upper Tigris, a struggle for domination continued among the cities of Assyria proper. Next to Assur, one should mention Ekallate, Eshnunna and Elam, as well as perhaps Mari, whose interests overlapped in this region [Yuhong 1994: 62-92]. Not less important, a section of the middle Euphrates and the Khabur emptying into it served as routes leading north and west. The kingdoms that participated in the power struggle for control over the region were Mari, Terqa and other lesser kingdoms existing there as well as external powers such Halab, the Kingdom of Subartu under Shamshi-Adad or even Eshnunna and Elam [Yuhong 1994: 93-109]. As far as Syria is concerned, it was dominated by the kings of Jamhad (Halab), with Qatna and Urshum being powers to be reckoned with. Syria's road routes were well connected to northern Mesopotamia via Emar, Karkemish and to Anatolia via Urshum and Hahhum [Kelly-Bucellati 1990: 123; Astour 1995: 1415; Olbryś 2007: 100-101]. Extending south from Amman and Alalach, they reached western Palestine via Kadesh, Haçor and the Beq'a Valley and continued towards the Egyptian border. In classic antiquity the route was called *via maris* [Klengel 1979: 80; Astour 1995: 1416].

The great importance of trade can be clearly seen in records and law collections from the period in question. The Code of Hammurabi, sections 100-107, and sections 5-6 of the Hittite Laws contain provisions aimed at facilitating trade and ensuring security of trade operations and people involved in it [Driver, Miles 1956: 187-202; Klengel 1979: 89-91; Stepień 1996: 100-101; Hoffner 1997: 217-218]. However, some letters show that rulers did not hesitate to strike at the economy, including enemy's trade, to reach specific political aims. A perfect example is letter AbB 11 193, sent by Sin-muballit, Hammurabi's father, to one of his commanders in which he orders the commander to attack caravans approaching enemy cities to strike fear into their hearts [Leemans 1968: 211-212]. The fact that trade persisted despite such obstacles proves that it was profitable enough to attract people ready to take the risks under any political circumstances. In addition, one should also take into account other factors, which have been left out so far, like nomads and bands of robbers on steppes, which could have made trade difficult [Klengel 1977: 68-70]. Relying on letters from that period, of which from Babylonia alone 3,000 have been published to date, one can get the impression that despite the political situation trade was universal and took on ever more complex organizational forms. A new development in this respect, both in the south and north, was private commercial companies. The capital invested in them varied greatly from rather small amounts of a few shekels of silver to substantial ones, especially in the north, of several dozen minas of gold [Larsen 1977: 124-126].

The first half of the 2nd millennium BC yielded the most interesting archives of commercial documents in the whole history of the ancient East. The texts were discovered in a district of Kanesh, eastern Anatolia, which as early as the 1st half of the 3rd millennium BC played an important role in the local economy as well

as in trade extending over a broader area. In the early 2nd millennium BC, these activities unexpectedly intensified greatly thus allowing us to build a model facilitating the understanding of trade throughout the Near East. The most extensive monograph devoted to the trade settlement at Kanesh and business done by merchants residing there is G. Dercksen's *The Old Assyrian Copper Trade in Anatolia* published in Istanbul in 1996 [also Larsen 1976; Veenhof 1995]. The Old Assyrian trade flourished between the upper Tigris drainage and eastern Anatolia. Kanesh is situated on the plain that in this east forms a kind of a gate to the Konya plain, interspersed with interrelated urban centres, including Purushanda and Hattusha. In the east, Kanesh had access to a route leading to the upper Euphrates valley, i.e. to northern Syria and Mesopotamia. Hence, the city was ideally located to be an intermediary in trade between the lands in the east and west [Postgate 2005: 214; Koliński 2007a: 110-111]. On the opposite side, Kanesh's partner was Assur, located in the eastern portion of northern Mesopotamia, on the route from the Persian Gulf, along the Tigris. The route was joined by another from the east, crossing Eshnunna or Nuzi. The commodities shipped to Assur, next to locally produced goods, included, for the most part, others originating in countries located in the south and east. Of vital importance was the import of tin from Central Asia, from the south of Iran (Fars). The commodity was the chief export to Kanesh [Leemans 1960: 123; Astour 1995: 1404; Yoffee 1995: 1393; Postgate 2005: 212-213]. Actually, it is hard to tell when exactly Assyrians began to settle in Kanesh as the material culture of the incoming populations did not differ much from the indigenous ones. Therefore, for a more accurate date one can rely only on texts, and the historical and political context. As the monarchy of the III dynasty of Ur fell ca. 1939 BC, it is believed that the cooperation between Assur and Kanesh started soon afterwards, still before the end of the 20th century BC. However, the hill on which the settlement was located had been inhabited earlier [Śliwa 1997: 55]. Hence, it cannot be ruled out that the contacts between northern Mesopotamia and eastern Anatolia, occasioned by the trading colony, were established earlier as well [Klengel 1979: 104-105]. The greatest collection, numbering 20,000 texts on the life in the colony in its heyday, so-called Kanesh II layer, is dated to the latter half of the 19th century BC. Soon later, the decline of the outpost began after a short revival in the period of Kanesh Ib2. Hence, the Kanesh texts illustrate the growth, prime and decline of the settlement.

The texts from the prime time of the trading colony at Kanesh present a rather comprehensive picture of its life. We know that it had its self-governing body (*bit karim*), its internal rules and regulations, settled relations with a local ruler and even its own tax system [Larsen 1976: 283-288; Klengel 1979: 104-105; Veenhof 1995: 861-863; Bryce 2005: 22-24]. What is of particular interest to us, the settlement was the end of a very long trade route, extending from Assyria to Anatolia for about 1,600 kilometres. It ran from Assur first to centres located in Djebel Sinjar (Qatara, Razama), continued north-west to Shekhna (present-day Tell Leilan) and

the Mardin pass, where the important economic and political centre of Urkesh (modern Tell Mozan) lay [Ritsvet 2008: 589]. There, the route could have turned north towards Amida (Diyarbakir) and then west as far as the Upper Euphrates Valley extending north. This is shown by the presence there of Khabur pottery and another, having clear south Mesopotamian traits [Parker, Dodd 2003: 35-36]. Another branch of the route crossed Shekhna, the Khabur triangle and continued due west until the crossing of the Euphrates. It turned in the direction of Anatolia in northern Syria, passing through Urshum.

What's important about the course of the route from Assur to Kanesh is its great diversification and division into several crucial sections that were marked by successive Assyrian outposts such as Eluhhut, Nihriya, Burudum, Urshum, Zalpa (in Syria), Timilkia and Hahhum, which merchants from Assur liked to call at. Along the trail, three kinds of trading colonies were located: next to karum, we know of smaller posts called wabartum and ešertum [Dercksen 1996: 64; Veenhof 2008: 165]. It must be stressed that the trade involved exchange of very large quantities of goods and used caravans of as many as 200 beasts of burden. What was shipped westward included primarily metals (tin and copper) and textiles originating mainly from Babylonia. In the opposite direction, caravans carried mainly silver, gold and bronze goods. Thus, it was actually one-way trade and scholars agree that from the west to Assur, merchants carried mostly if not exclusively profits that they later invested in the next expedition to Anatolia [Veenhof 1995: 864]. In the case of the major commodities, i.e. tin and textiles, Assyrian merchants were intermediaries in a long-distance commercial exchange, reaching distant lands. As it has already been mentioned, tin in all probability came from the Fars Mountains in southern Iran, while textiles were manufactured at Assur and Babylonia [Reiter 1997: 209; Postgate 2005: 213]. Neither commodity ended its journey in Kanesh, but was transported further to western Anatolia where more colonies of Assur merchants were located. Next to the karum at Kanesh, we know of Assyrian trading colonies in Purushanda, Wahshushana, Hattusha and Zalpa at the mouth of the Kizilirmak river on the Black Sea coast. The fact that even the last-mentioned one contained an Assyrian trading colony (wabartum) may mean that it was an important commercial centre, having ties to the cities on the Black Sea coast [Astour 1995: 1410; Oguchi 1999: 98]. A more important of the Anatolian routes, followed by Assyrian merchants, extended from Kanesh via Purushanda in the south-west to western Asia Minor and then north-east to the Black Sea coast [Astour 1995: 1410; Dercksen 1996: 63; Veenhof 2008: 165]. The other route continued from Hattusha and Amkuwa to Zalpa. It is possible that Assyrian and Anatolian goods went further north, to cities on the Black Sea coast. Hence, it seems quite certain that Assyrian merchants made themselves at home in Anatolia and took advantage of the local economic situation, although they were not allowed to trade in goods of local origin. It must be added that such Assyrian trading colonies were set up not

only in the west and north but also south of Assur, for instance, at Nuzi and Sippar in Babylonia [Postgate 2005: 212-213].

In conclusion, the trading colony at Kanesh, because of its size, was certainly exceptional. However, we know of many other *karum* type outposts in the Near East that were attached to urban centres in both southern and northern Mesopotamia. The term *karum* itself originally meant a harbour or a pier where a commercial district of a city developed – a frequent element of Mesopotamia's cityscapes [CAD K: 231-232; Stol 2004: 939; Postgate 2005: 213-215]. It follows from the Kanesh archives that despite its great significance for the economy of a given region, trade in a *karum* did little to bring the two communities closer together. Merchants from Assur kept apart from the indigenous population, used their own calendar, language and even for the most part Assyrian servants [Postgate 2005: 215]. The indigenous inhabitants of Kanesh did not absorb cultural novelties from the strangers, either, despite the fact that Assyrian merchants used the Akkadian language and cuneiform script. However, the dialect and script that were later adopted in Anatolia originated from Babylonia and arrived there from Syria [Klengel 1979: 110; Postgate 2005: 215]. To the significance of Assyrian trade with Anatolia testifies the fact that Assur rulers took special care of it. Specifically, they took much effort to remove any problems merchants might encounter in their profitable endeavours. Towards the end of the colony's existence, a royal official even appeared there, called *waqil tamkari* or merchant overseer. This, however, may indicate a desire to bring trade under the control of the royal palace [Postgate 2005: 214-215]. In addition, the significance of the *karum* at Kanesh is underlined by the rivalry between Assur, and Mari and Syrian cities reflected in late texts and pottery from Kanesh [Klengel 1979: 79; Koliński 2007a: 113]. Apparently, the competitors lay in wait for a crisis in trade with Assur in order to take over this profitable activity. The penetration of Anatolia by trade agents from Mari and Syrian cities was possible also because the tin from Iran reached the middle and upper Euphrates from whence some of it was shipped to western and southern Syria and Palestine [Leemans 1968: 209; Klengel 1979: 78-80; Muhly 1985: 282; Reiter 1997: 213-214]. In this connection, it is worth mentioning that the 'tin route' from the east through the Diyala Valley turned also in the direction of southern Mesopotamia, Larsa and Ur on the Persian Gulf, although it is hard to tell whether tin reached these destinations through the Diyala Valley or through Assur [Leemans 1968: 193, 206; Reiter 1997: 213-214]. All these branches of the 'tin route' from the east, from behind the Zagros Mountains, were a continuation of a single route beginning at the Iranian Mountains of Fars. Movement of goods along this eastern portion of the route spanned even greater distances and must have been even more intensive than that we know from Old Assyrian trade. Unfortunately, due to the absence of any written records, we know few details of this fascinating development in its Iranian part.

Another watershed in the political and economic history of the ancient East, hence in the course and operation of trade routes as well, took place in the latter half of the 18th and early 17th centuries BC. It coincided with the reign of three rulers, namely, Shamshi-Adad I, king of northern Mesopotamia, Rim-Sin, king of Larsa and the whole south, and Hammurabi, king of Babylon. Shamshi-Adad I, next to northern Mesopotamia and the Khabur triangle, subdued the middle course of the Euphrates with Mari. It was his kingdom that was crossed by communication routes used by merchants from Assur on their way to Kanesh. Due to wars waged by Shamshi-Adad, roads leading west and north from Mesopotamia were often unsafe or even blocked for some time, which had an adverse effect on Anatolian trade. It is possible that because of wars fought by Shamshi-Adad with Yamhad in Syria, merchants from Assur had to follow the route crossing the Mardin Pass and passing through Amida and Hahhum to avoid crossing the border between the warring countries. Because of the route towards Iran, crossing the Zagros Mountains, the king of Subartu, as this was the name used by Shamshi-Adad in respect of his kingdom, attempted to impose his control on Eshnunna in the Diyala Valley, but failed in his efforts. This must have been the reason for charting a new route to Iran along the Little Zab Valley, which bypassed Eshnunna. In the opinion of Oguchi, the Great Zab River in the north could have been used for that purpose, which finds from Shemshara seem to suggest. However, if this had been so, tin from the east would have reached Nineveh, which certainly did not participate in this trade [Oguchi 1999: 98-100]. This route, too, was blocked by Turukku peoples, pressing on Assyria from the east. Hence, the supply of tin to Assur from the east finally ceased, which brought about an end to Old Assyrian trade in the late 18th century BC [Larsen 1976: 88-89; Oguchi 1999: 95].

Around this time, southern Mesopotamia was dominated by Larsa that gained control of the mouth of the Tigris and Euphrates rivers in the south, including the region's largest urban centres such as Ur, Larsa, Nippur and Uruk. In terms of economy, the kingdom's role was highly significant as the most important routes crossed it on their way to the Persian Gulf and Elam. Also, the population of the kingdom formed a major market and had a considerable production potential. In the buffer zone between Larsa and Subartu, there lay a number of smaller kingdoms of which more important ones were Babylon and Eshnunna mentioned earlier. This period of relative stability lasted for about 20 years and ended with wars that engulfed the region soon after 1700 BC. From the chaos, Babylon emerged victorious and its ruler, Hammurabi, after five years of fighting was able to bring the whole southern Mesopotamia, Diyala Valley and Mari under his control and incorporate into his kingdom. Northern Mesopotamia with Assur and Ekallatum became Babylon's client for a short time [Kuhrt 1995: 113]. In this way, this young kingdom whose centre lay in the area formerly occupied by Akkad became a power on the scale of the whole Near East. The kingdom of Babylon exploited economically

its geographical location, but faced serious limitations as well. Hammurabi did not conquer Syria which could still obstruct routes going north and west. Additionally, Babylon was in conflict with Elam, which made eastern trade difficult despite having control of the Diyala Valley. The latter caused problems as well since the king of Babylon is known to have put down rebellions there and his son, Samsuiluna, fortified the region because of a new threat posed by Kassites [Kuhrt 1995: 115-116]. Samsuiluna, however, lost control over the estuary of the Tigris and Euphrates rivers in the south, allowing his country to shrink considerably whereby it lost favourable conditions for economic development. Hammurabi's achievements, nevertheless, inspired awe in his contemporaries and descendants, making Babylon the cultural capital of the then world. As regards trade and communication routes at that time, it follows from letters and other texts that merchants were very active then. This is true for both private ones and those working for institutions. They were active throughout Mesopotamia but the directions particularly preferred in their expeditions included the east (Elam), north (Arrapkha, Ekallatum, Assur) and north-west (Mari, Tuttul and Emar) [Leemans 1960: 89-109].

As regards economy and trade in northern Mesopotamia and Syria in the latter half of the 17th century and in the 16th century, i.e. in the times when they were not satellites of Babylonia, the situation is hard to describe with any certainty as no uniform political organism existed then in this area. Archives from Nuzi, one of the kingdoms located in the area, show that Hurrian kingdoms prospered there. Soon after the fall of Babylon in 1531 BC, they formed Mitanni federation, extending from the upper Tigris River as far as western Syria. Its centre was located at Washshukanni on the upper Khabur River. It is very probable that still before the rise of the federation, these petty kingdoms were interconnected by trade and east-west routes [Oguchi 1999: 95]. To a rather uniform character of these kingdoms and their economic prosperity testify texts from Nuzi, Emar and Alalah and the spreading of the so-called Khabur pottery indicates a rather uniform character of their material culture [Oguchi 1999: 96; 2006: 54]. The course of the then communication routes is not known to us but we can only suspect that still before the rise of the Mitanni federation they ran east-west with a deviation to the south in the east and branches running north and south in the west.

As far as the history of Anatolia is concerned, a single development of utmost importance for the region and the whole Near East in the first half of the 2nd millennium BC, was the emergence of the Hittite state. At least since the end of the 18th century or soon after the collapse of Assyrian colonies at Kanesh and other Anatolian cities, aspirations to achieve unity by the urban centres of Konya Plain and its fringes had manifested themselves. As it has already been mentioned, in the light of the Kanesh texts, the most important city in terms of politics was Purushanda, situated in south-central Anatolia. However, it was not this city that played a crucial role in the integration of the region as the earliest records point to Zalpa and

Kushar, located in the northern and north-eastern parts of Anatolia, respectively. Zalpa controlled the mouth of the Kizilirmak River on the Black Sea coast, which might mean that it was well-poised to develop into a political power. The role of this city in Anatolia's contacts with the Northern Pontic Area is manifested by the fact that the Black Sea was called the Sea of Zalpa by Hittites and the location of the furthest trading colony of Assur merchants [Bryce 2005: 90]. Kushar, in turn, was located further east in the foothills of the Pontic Mountains. Sources show that Zalpa's rulers first and Kushar's later succeeded in bringing under their control all the major urban centres of Konya Plain, including Purushanda, Kanesh and Hattusha, building thus Anatolia's first vast kingdoms. In Bryce's opinion, the reason behind the struggle and rivalry for dominance over eastern Anatolia could have been the desire to control the trade route to Assyria [Bryce 2005: 34]. These first attempts at statehood disintegrated soon and a lasting unification of central Asia Minor succeeded only at the third attempt. This happened in the early 16th century BC and was the work of successive rulers of Kushar [Kuhrt 1995: 225-228].

The first rulers of united Anatolia immediately undertook outside expansion, the economic grounds for which are quite obvious as it was directed westwards at Arzawa and the kingdom of Wilusa, identified with Troy. The kingdom had started on the second period of rapid expansion around that time (Troy VI). The city took on even more monumental appearance than in the 3rd millennium BC and its material culture shows links to the centres of central Anatolia, Transcaucasia and Mycenaean Greece while Troy's ships may have penetrated the Black Sea. The important position of Troy in western Turkey is borne out by the Hittite texts that often mention strenuous efforts by Hatti kings to maintain control over it [Bryce 2005: 245-246, 340-342, 359-361]. The other direction of expansion by early Hittite rulers was Syria. There, local political and economic power was wielded by the kingdom of Yamhad with its capital at Halab [Bryce 2005: 75-77]. Murshili I, the third ruler of the united Hittite kingdom, conquered Halab ca. 1536 BC whereby, after mere one hundred years of existence, the Hittite monarchy acquired a solid base for economic and political stabilization, extending from the frontier with northern Mesopotamia, Syria and the upper Euphrates to the Dardanelles. The kingdom of Hittites not only controlled important trade routes but also rich deposits of raw materials, making other Near East countries reckon with it. A good example is the kingdom's relations with the Hurrian monarchy that extended over northern Mesopotamia and Syria. The latter was conquered by the rulers of Mitanni at the time of the first crisis suffered by the Hittite kingdom at the turn of the 16th century BC. The reason for the rivalry between the two powers was their shared desire for controlling Syria and south-eastern Anatolia, which were crossed by very important trade routes of the Orient. Consequently, any stabilization in this area was possible only with one of the monarchies having the upper hand. And so, in the 15th century BC, the Hurrian federation gained the upper hand, while in the 14th and 13th

centuries BC the Hittite empire enjoyed supremacy. In fact, in over 200 years of co-existence, the two kingdoms virtually never had peaceful relations, instead there was always fierce rivalry between them [Kuhrt 1995: 289-295, Bryce 2005: 189-193].

2.4. COMMUNICATION ROUTES OF THE AMARNA PERIOD

The fall of the Old Babylonian kingdom, which occurred in the latter half of the 16th century BC following the Hittite invasion, and the rise of the Mitanni federation meant a beginning of a new period in the political and economic history of the whole Orient. A new order taking shape in the Near East was brought about by the territorial expansion of Mittani. However, before this came to pass fierce conflicts between kingdoms raged. In the 15th century, for over half a century, the Hurrian monarchy fought with Egypt over the control of Syria in the south-east and engaged in conflicts with the Hittite kingdom in the north-west time and time again. Possibly, hostile relations may have existed too between Mitanni and Babylonia, ruled then by the Kassites who had come to power there after the Hittite invasion [Kuhrt 1995: 339-341]. In the long run, a conflict with Mitanni was not in the interest of Egypt or Babylonia, hence ca. 1420 BC a peace agreement was concluded with Mitanni, stabilizing the economic and political situation throughout the region for half a century. The Tell el-Amarna archive shows that it was a kind of Near Eastern belle époque which for the first time in the region's history saw a free exchange of missions and goods in the area from the Persian Gulf and the Zagros Mountains to Egypt and Anatolia. The letters speak of vigorous exchange of diverse goods, especially ready-made luxury items, ornaments, clothes, chariots and horses. The last mentioned commodity was greatly valued especially by Egyptian monarchs. The Amarna letters show only the Egyptian perspective of the exchange, thus in principle we do not know what pharaohs offered in return to their Asian trade partners apart from gold; curiously enough it was cheaper than silver in Egypt [Avruch 2000: 160-163]. What is intriguing about the exchange is the course of the longest caravan route, joining Babylonia to Egypt. The unresolved question is whether it took a shorter way along the Euphrates, across south-eastern Syria, or on its way it reached the upper Khabur and the Mitanni capital. Looking on slightly earlier Old Babylonian itineraries, one thinks that the latter course seems more probable.

In the 15th century BC, no profits from the international commercial exchange were made by Assyria and the Hittite kingdom, which found themselves under a strong influence of Mitanni. After almost 70 years, as a result of fierce fighting in the middle of the 14th century BC, it was them that prevailed over their oppres-

sor and replaced it in the political system and commercial exchange [Bryce 2005: 174-177, 189-193]. A new order, which emerged in the latter half of the 14th century BC, differed considerably from the previous one as Syria, overrun by Hittites, was closely tied to Anatolia, while northern Mesopotamia, after a short domination of Hittites in the early 13th century BC, found itself within the orbit of Assyria. Having hostile relations with the Hittites, Assyria attempted to find a recompense for being denied access to Anatolian raw materials in expanding into the Transcaucasia (Nairi) [Leemans 1968: 209, Bryce 2005: 347-351]. Finally, a conflict ensued between the two kingdoms, with the Hittite state suffering a defeat. On the opposite end, Assyria attempted to take control over the Diyala Valley and the road to Iran, causing wars with Babylonia. The fighting brought destruction to an important trade centre at Nuzi [Kuhrt 1995: 356-357]. Assyria's hostile relations with the Hittite state in the west and Babylonia in the south, as well as an economic blockade on both sides, prevented the country from taking advantage of its favourable geographic location until the end of the 13th century BC. It must have made do with its own resources to be found between the Zagros Mountains in the east and the upper Euphrates in the west as well as in the Transcaucasia.

The new situation that took shape in the Amarna period exerted an especially strong impact on Syria that was divided into two spheres of influences. First, in the 15th century BC, the division was made by Egypt, which annexed southern and western Syria including the Mediterranean coast, and Mitanni, which controlled northern and eastern Syria. The division actually followed a natural distinction between the coastal zone and the farming-steppe one, which was very clear already earlier. For the Mitanni kingdom, the possessing of Syria was vital and we know that petty Hurrian states existing there, such as Alalah, Halab, Karkemish or Emar, played a very important role in the geopolitics of great kings from Washshukanni. In effect, eastern and northern Syria integrated even more with northern Mesopotamia while western and southern Syria, together with the Levantine coast and Palestine, associated themselves with the eastern Mediterranean and Egypt. As regards the trading routes of central Syria at that time, the role of the route running from the Orontes Valley south, in the direction of Palestine and Egypt, was strengthened likewise the route from the Euphrates to the Mediterranean via Halab and Alalah, which served as Mitanni's gateway to the sea.

In the latter half of the Amarna period, from the middle of the 14th century BC until the invasion of the Sea Peoples, as a result of Egyptian-Hittite wars, eastern and northern Syria came under Hittite rule. The new masters set out to integrate it into Anatolia. This was an important novelty for the region, the more so as this involved severing it from northern Mesopotamia ruled by Assyria since the early 13th century BC. Hittite rulers attached great importance to sovereignty over Syria and founded there two Hittite kingdoms, at Karkemish and Halab, ruled by the sons of the great king from Hattusa [Bryce 2005: 190-192]. Due to hostile economic policies

and a blockade in the east, the Hittite part of Syria more and more succumbed to Anatolian influences, reinforced even more by a Luvian colonization. As a result, Syria was considered part of the land of Hatti until the end of the first half of the 1st millennium BC. To the lasting character of the Hittite or Luvian impact on Syria testify the post-Hittite kingdoms that emerged there in the late 2nd millennium BC and greatly affected the region's history in the 1st millennium BC.

3. MEANS OF TRANSPORT AND CONDITIONS OF TRAVEL

It is a common belief that owing to an easy access to rivers, the most important means of transport almost throughout the Near East in the Bronze Age were boats. Indeed, the major civilization centres were located on great rivers or their tributaries. Their waters over long sections are quite calm and navigable. As key evidence of the role of navigation in the early history of the Orient serves the example of the Euphrates in the trade contacts of southern Mesopotamia and Syria. The example seems to be borne out by the location of the so-called Uruk colonies in the 4th millennium BC that were indeed founded on the middle and upper courses of both waterways. In this way they had direct communications with the metropolis [Astour 1995: 1407-1408]. Also later, merchants from the cities of Sumer and still later from Sumer and Akkad often imported different raw materials and goods from the north using boats. In the light of inscriptions of Gudea, king of Lagash, from the 21st century BC, boats could serve trade of the south with lands on the middle or even upper courses of the Tigris and Euphrates rivers [Limet 1977: 57; Astour 1995: 1408; Postgate 2005: 208].

However, the opinion that boats were commonly used for trade in the Orient must be reviewed because, next to some weak points in the theoretical aspect, it cannot be defended anymore in the face of recent research results, especially in the field of archaeology. First and foremost, even in the case of centres located on the same river, commercial exchange over longer distances in both ways could not rely solely on boats. It is easy to imagine a trip by boat downstream, but for travel in the opposite direction other means of transport were used. Texts from the 3rd and 2nd millennia BC, including private letters (e.g. AbB 2 83, 87, 177), show that for travel upstream merchants from the south used donkeys for carrying goods north [Klengel 1979: 87]. Theoretically, they could sell the beasts of burden at their destination and buy boats with the money to carry them downstream [Dercksen 1996: 61]. This solution seems rather doubtful as donkeys sold in large numbers at the destination of an expedition would fetch a low price for animals of the highest quality that they



Map 1. Trade routes in the ancient East from the 4th to the 2nd millennium BC

were [Stol 2004: 871]. In the case of northern Mesopotamia and Syria, the situation was made even worse by a strongly developed breeding of donkeys there, which would have made any such transaction even less feasible [Klengel 1979: 97]. Also, the buying of boats in the north would have been rather expensive if merchants from the south had purchased them there often. Theoretically, these could have been simple rafts using inflated animal hides, built on the spot [Bass 1995: 1421-1423]. One can doubt, however, whether such makeshift 'boats' could carry heavy loads for many days it took to sail downstream hundreds of kilometres. Another inconvenience related to the use of boats for the transport of goods over long distances was the need to control the whole waterway or at least ensure safety to the expedition. For having to keep to the stream meant that no obstacles posed by the political situation could be avoided. All these inconveniences would be tolerable only in the case of commercial exchange managed by large institutions, royal palaces or temples, having at their disposal substantial material and human resources. Such institutions did not have to take care to make such expeditions highly profitable. Both early literary texts and later records, mentioning the import of precious materials for the court, show that such imports were not part of regular trade but were brought in fulfilment of royal orders. It is possible that in such cases boats or rafts were bought or built on the spot and used to transport such raw materials [Kramer 1977]. It was for such institutions that goods were initially brought from the north by boat. The water transport, however, was too expensive for private trade, which can be seen in 2nd millennium BC texts, and thus it ceased to be widely used [Postgate 2005: 218].

The opinion that boats were a common means of transport could be true for southern and central Mesopotamia. Sumer and Akkad are in principle a single country crisscrossed by many canals and branches of the Tigris and Euphrates rivers. The rivers flow calmly in their lower courses, which makes navigation easy. Therefore, the use of boats for transport in the south could be widespread since the earliest times. With the passing of centuries, information on the use of boats for transport is ever more frequent to reach a peak during the reign of the III dynasty of Ur. It follows from these records that boats had a very high cargo carrying capacity of as much as 90,000 litres of grain (approx. 70 tonnes) and sailed on the two rivers and their branches from the Persian Gulf to the cities of northern Babylonia and the Diyala Valley in the north and Mari on the middle Euphrates [Bass 1995: 1422-1423]. At least in part, Sumerian cities maintained contacts using boats and ships with the outer world, in the first place with seaside countries such as Elam, Dilmun (Bahrain), Makkan (Oman) and Meluhha (India). For this purpose, the largest and strongest ships were built so that they would withstand undulation of the sea [Postgate 2005: 218]. A certain drop in the use of large-tonnage boats is observed in the first half of the 2nd millennium BC when Mesopotamia, and the valleys of major rivers too, were cut by borders of many countries, frequently at odds with one another. The partitioning of the region prevented inland navigation

from developing. Yet, boats remained the chief means of transport in southern Mesopotamia until the end of the Bronze Age, which is evidenced by the provisions on navigation laid down in Hammurabi's Code of Laws (Sec. 236-240) [Driver, Miles 1956: 429-432, 473-475].

The use of other means of transport, apart from boats, was necessary from the earliest times to maintain contact between southern Mesopotamia and the lands that were not joined to it by waterways: eastern Iran and Afghanistan [Oates 1991: 24-25; Selz 1991: 32-34; Astour 1995: 1405]. Here, certainly caravan transport was used as described in literary works devoted to the early rulers of Uruk [Kramer 1977]. Organization of such transport was rather troublesome as caravans had to make regular stopovers, replace injured animals, find water to drink by people and animals, etc. Additionally, it was necessary to hire right people to handle goods and animals, and defend a caravan against possible assailants. On long routes, stretching for over a thousand kilometres, there could always happen something out of the ordinary which called for special precautions [Leemans 1968: 212]. As regards the use of wagons in the earliest periods of trade, we do have evidence of their existence, but their use for the transport of goods is rather improbable. The earliest wagons that we know from mock-ups clearly served ritual-ceremonial purposes [Bollweg 1999: 187-191]. There is no doubt, however, that they were soon adapted to more practical tasks.

The situation in northern Mesopotamia and Syria looked similar: merchants frequently had to resort there to land transport. Apparently, for transport purposes could be used the valleys of four major rivers: the Tigris, Khabur, Euphrates and Orontes; however, their north-south course did not ensure in many instances any connection between countries rich in raw materials and those which needed them. Hence, the use of other means of transport than the boat in the north resulted from the domination there of east-west roads connecting the Zagros Mountains to Syria and Anatolia in one direction and the west to Assyria, the Diyala Valley and Babylonia in the opposite direction. The roads, however, did not coincide with the river courses in the area. Even in the kingdom of Mari, located on the middle Euphrates, which thus had access via the river and the Khabur to neighbouring countries, the dominating means of transport were donkeys and wagons. This can be seen in Hammurabi's letter to Zimni-Lim, king of Mari, in which the ruler of Babylon, meaning means of transport, writes straightforwardly to his ally: "Your country is donkeys and wagons, mine is boats" [Limet 1977: 54; Astour 1995: 1403; Stol 2004: 872]. This short sentence, deprived of any justification, gives the impression of referring to some well-known fact. Hence, the letter suggests that the means of transport most widely used in the north were beasts of burden and wagons. Since the former are a gift of nature which can be easily adapted to carry goods, it was them who served as the most important means of transport. In effect, a classic view related to long-distance trade throughout western Asia, from India to the coast of

the Mediterranean Sea, from the 4th millennium BC until the construction of the railways, was caravans of pack animals, initially donkeys and later camels.

Pack animals, however, were not a sufficient means of transport as not infrequently such goods had to be carried which could not be loaded onto animals, e.g. logs of wood or blocks of stone. For such loads another means of transport had to be found. It was, of course, the wagon, mentioned in letters, business texts and codes of laws. However, until the end of the 3rd millennium BC relatively few of them had been used. The oldest references to transport wagons date back to the middle of the 3rd millennium BC in Ebla. They mention two- three- and four-wheel wagons, including a four-wheel wagon of the queen [Astour 1995: 1402]. The representations of the early wagons from the so-called Standard of Ur and the Stele of the Vultures show the vehicles to be rather simple structures unable to carry goods over longer distances at least initially. To the use of wagons in transport point texts from Kanesh. It follows from them that in the early 2nd millennium BC, wagons were an important means of transport in the north next to the donkey. What's more, Old Assyrian texts suggest that wagons were used in trade often enough to make the expression 'wagonload' a measure of the amount of goods [Gökçek 2006: 196]. What else can be seen is the fact that it was a standard practice to rent wagons together with oxen and drivers. Although this was quite expensive but allowed merchants to cut down considerably on the number of animals and personnel. As it has already been mentioned, it follows from records that a single caravan could have up to 200 donkeys, loaded with 12 tonnes of goods in total. This required hiring several dozen men to handle goods and animals and to protect them. The task was made simple by the use of wagons that could carry over 1.5 tonnes of goods i.e. as much as was carried by 25 pack donkeys. This could have greatly improved trade and contributed to its growing in size so much. The data we have from the period of Kanesh II allow us to estimate the aggregate amounts of goods transported. It turns out that in the course of 50 years of the most intensive trade between Assur and Kanesh about 100,000 bales of canvas and 80 tonnes of tin were transported. This amount of tin was enough to produce 2,000 tonnes of bronze, taking the average content of tin in bronze to be 10-11 per cent [Muhly 1985: 279; Reiter 1997: 289]. Admittedly, the use of wagons in caravans could have slowed down the journey but the savings were very clear. It follows from the texts that under normal conditions a one-way journey took about six weeks to complete, which might not be long enough for a caravan using wagons [Dercksen 1986: 61-67; Astour 1995: 1408-1409; Veenhof 1995: 864].

A broader use of wagons both in the south and north is borne out by the Old Babylonian and Elamite texts which until the end of the Bronze Age supply many examples of renting wagons and comments concerning such vehicles (Riftin 113, MDP 10 103, MDP 22 131). And so, a text from Ur tells about the requesting of 30 transport wagons (UET V 24). Also, in the Nuzi archives we find an archival note

which mentions 16 tablets concerning wagons of this type (*eriqqum*) (PBS 2/2 140, RA 36 170, CAD E: 296). As can be seen from excavations, individual countries had their characteristic wagons, which is confirmed, as it seems, by a letter from Mari in which we read about requesting a 'Mari type' wagon (ARM 4 12, CAD E: 296). In turn, the use of wagons for transport in the south is evidenced by the provisions of the Laws of Hammurabi and Laws of Eshnunna that set rates for the renting of vehicles with draught animals (LH para. 271 & 272, LE para. 3). The rates were very high: in Babylonia it cost 180 litres of grain to rent a wagon with oxen and a driver per day and 40 litres to rent a wagon only. The Laws of Eshnunna provided for a slightly smaller charge for the renting of a wagon with oxen and a man to handle it of 100 litres of grain [Roth 1997: 131, 217, Gökçek 2006: 188-196].

A lot of information on the use of wagons in the economy, especially in trade, comes from the Mari archives. A letter was found there which mentions a transport of timber on wagons from Qatna to Ekallatum. These must have been particularly sturdy wagons because the load was transported over a distance of 500 km [Charpin 2004: 163-165]. From the times of Zimri-Lim, there are records of the use of wagons during war expeditions, in the first place for carrying siege machines and troops as well [Astour 1995: 1402]. Details concerning capacity and teams of draught animals show that there were two types of transport wagons in use in northern Mesopotamia: heavy ones for the carriage of bulky loads, drawn by oxen, and lighter ones, for the carriage of lighter goods and people, drawn by donkeys. What may be misleading is the fact that both types were referred to as *eriqqum* [Astour 1995: 1402, Gökçek 2006: 185]. The Mari texts speak of a quite dense network of land routes, especially in Syria, that joined numerous urban centres of the region. Interestingly enough, the roads in Syria only rarely coincided with the local waterways, hence a dominant role must have been played there by land transport, relying on pack animals and wagons. This is borne out by the finds of several models of such wagons in the region. Topographic studies show that Syria's communication routes were used in this way until the invasions by the Sea Peoples in the 13/12th century BC., when many local trade centres were destroyed [Astour 1995: 1415].

The most spectacular source providing evidence of the use of wagons in transport and trade in the Orient is terracotta models of wagons published by J. Bollweg in her extensive work *Vorderasiatische Wagentypen im Spiegel der Terracottaplastik bis zur Altbabylonischen Zeit*. This is a surprisingly large collection including almost 200 wagon models of which a clear majority were designed for other purposes than economic ones. Their number and variety show that they must have played an important role in the transport of goods, starting from as early as the middle of the 3rd millennium BC. The oldest of those that may have been used for transport are dated to the first half of the 3rd millennium BC. They were found in Tell Chuera and Tell Brak in northern Mesopotamia [Littauer, Crouwel 1979: 19; Bollweg 1999: 29]. These were sturdy vehicles with a side planking and, which is important, a covering

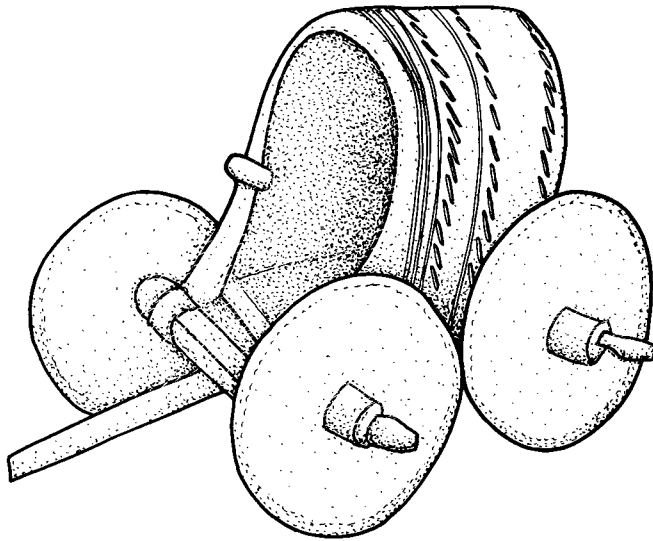


Fig. 1. Syrian wagon of the 3rd millennium BC. Tepe Gawra (2440-2150 BC) [Bollweg 1999: Fig. 126]

supported on bows. The covering was certainly designed to protect goods against rain not infrequently encountered on the uplands of northern Mesopotamia, Syria and Anatolia. The introduction of this improvement indicates a permanent adaptation of wagons to land transport already since the middle of the 3rd millennium BC. From the latter half of this millennium we have a rich collection of wagons in the so-called Akkadian style. They come from both the east of the region (Nuzi, Tepe Gawra) and Syria (Tell Bi'ah, Hamah, Gaziantep, Tell el-Hamman), where, as it has been already observed, the course of communication routes made traders use pack animals and wagons [Bollweg 1999: Fig. 122 – Tell Bi'ah, 124 – Hamah, 125 – Terqa, 126 – Tepe Gawra, 133 – Tell el-Hamman]. Also, from the north, come more rare models of wagons designed for religious purposes, which testifies to the wide use of the invention [Bollweg 1999: 42-43, 141-144 and Figs. 156, 161, 165 and others]. Syrian and northern Mesopotamian wagons are presented by Bollweg in Figs. 94 (Tell Maşin), 95, 122 (Tell Bi'ah), 124 (Hamah), 126 (Tepe Gawra), 130 (Gaziantep?), 133 (Tell al-Hamman?), 134 (Syria), 135 (Syria), 136 (Syria).

Highly interesting observations on the way merchants travelled in the Old Babylonian period are supplied by few itineraries dated to this period. The texts were published by A. Goetze [Goetze 1953] and W.W. Hallo [Hallo 1964]. There, we

can find a brief description of the routes covered by merchants over long distances. The best known of them is a short description of a journey from Larsa to Emar. According to the itinerary, travelling to their destination, the merchants chose to visit Assyria and the Khabur triangle, making the journey considerably longer. Consequently, they first travelled on ships to the Diyala Valley and continued along the middle Tigris River as far as Assur and Ekallatum, where they turned west. The next centres visited by the merchants were Apqum in Djebel Sinjar, Shubat-Enhil and the cities of the Khabur triangle. There they visited Urkesh and Ashnakkum, where the route from the east to the west crossed the north-south route [Klengel 1979: 104; Astour 1995: 1414; Stol 2004: 889-891]. Travelling further west, the Larsa merchants reached Harran where they turned south on the Balikh to reach Tuttul and moving along the Euphrates, they reached their destination [Astour 1995: 1410-1414]. It is hard to tell what the reason was for taking such a roundabout way if one remembers that from Larsa to Emar there ran a direct north-western route. Most probably, likewise Assyrian merchants, the traders from Larsa visited more attractive economic centres to buy more goods. Possibly, they traded them on their way to raise their profits. On the other hand, it is possible that the shortest way from Larsa to Emar, along the Euphrates, was simply too dangerous for political reasons [Leemans 1968: 212]. In sum, their round trip took slightly over half a year. The text itself seems to bear out Leemans's thesis on the Old Assyrian trade, holding that on successive legs of their journey, Old Babylonian merchants used different means of transport. Among them were boats and donkeys, and, possibly, in Subartu wagons were used as this scholar suggests that this type of transport could have existed between Assur and Shubat-Enlil during the reign of Shamshi-Adad I [Leemans 1960: 134].

Another interesting itinerary dating back to the late 18th century BC is a brief report on the expedition of the king of Mari to Ugarit. It was a diplomatic and business trip in which merchants from Mari, and perhaps from Babylon and Elam as well, participated or at least goods from these two countries were transported [Muhly 1985: 281-283]. Interestingly enough, the trip began in the Khabur triangle and continued west, too, across the upper Balikh River and via the cities of Emar and Halab to reach its destination where merchants from Cyprus and Crete were encountered. The archive of Zimri-Lim from the 18th century BC shows a very broad economic horizon of the kingdom of Mari. Contemporaneous texts mention in different contexts countries and cities from Dilmun (Bahrain) in the south, Susa in the east, Hattusha in the north and Crete in the west [Klengel 1979: 76-80]. Besides, the contacts of Crete and Cyprus with the Levant are documented already in the latter half of the 3rd millennium BC [Knappett *et al.* 2005: 47; Webb *et al.* 2006: 282]. Although the texts do not mention this, the king of Mari's expedition must have used many wagons and pack animals because the monarch, according to custom, travelled with his wives and part of the court. Obviously, in such a case

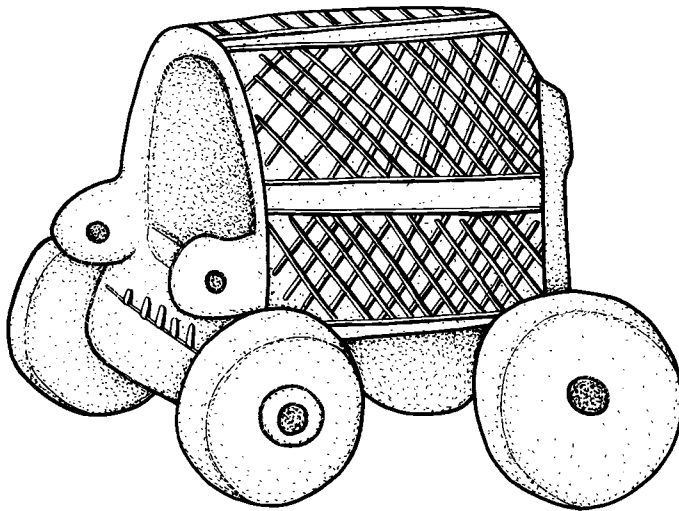


Fig. 2. Anatolian wagon of the 3rd millennium BC. Gaziantep (latter half of the 3rd millennium BC) [Bollweg 1999: Fig. 130]

wagons were necessary. Shamshi-Adad I's expedition in the direction of Qatna in southern Syria must have looked alike as he travelled to fetch a local king's daughter who was to marry his son. Also in this case, wagons must have been necessarily used. Although Shamshi-Adad himself travelled only as far as Terqa on the middle Euphrates where he was to wait for the arrival of his prospective daughter-in-law [Charpin 2004: 163-165].

One could expect that wagons becoming a more popular means of transport should bring about the adaptation of roads to the use by such vehicles. In principle, nothing of this kind can be observed except for one case, known as the 'wagon road' mentioned in the texts from Nuzi [Leemans 1960: 134; Astour 1995: 1403]. The city was located in the foothills of the Zagros Mountains and was a hub of routes from Iran to northern and western Mesopotamia, Syria and Anatolia. In addition, the area was crossed by the roads from the south to the north of Mesopotamia. Hence, it is possible that the commercial traffic there was so heavy as to make the construction of roads a sheer necessity. In Leemans's opinion, similar roads may have existed between Assur and Shubat Enlil in the reign of Shamshi-Adad and between the cities of the south and north, located close to one another, such as Assur and Ekallate, Babylon and Sippar, etc. [Leemans 1960: 118]. This may be also suggested by references to the renting of transport wagons in the texts from Elam, which is

an upland and mountainous country. From this area come models of as many as 13 wagons [Bollweg 1999: Figs. 19, 22, 24, 29, 42, 112, 127, 148, 149, 152, 153, 163] and although none of them was classified as a transport wagon, the existence of a road adapted to vehicular traffic seems to have been necessary. Likewise, texts from Kanesh suggest the existence of such a road between Kanesh and Purushanda, which is mentioned the most frequently as a destination of expeditions setting out from Kanesh into the interior of Anatolia [Dercksen 1996: 64]. The existence of permanent highways fitted even with some kind of traffic signs is suggested by literary works which mention enemies who remove signs to throw the country into chaos [Astour 1995: 1401].

As regards transport in Anatolia itself, its rivers are navigable only to a small extent and, therefore, merchants must have commonly used donkeys and other means of transport. The oldest wagon in Anatolia proper was found in Alaca Hüyük, north-east of Hattusha, and was dated to the last phase of the Early Bronze Age (24th/23rd century BC). As it has already been said these were the times when Anatolian cities flourished and their trade network covered the whole of Asia Minor and neighbouring countries [Sahoglu 2005: 341-344]. The emergence of wagons in Anatolia could have been a result of Syrian influences, which were particularly strong at that time [Ławecka 2006: 177-178]. One can wonder whether, owing to the Anatolian trade network covering also the Transcaucasia and Thrace, the wagon as a very important improvement in trade, was borrowed for use in transport in these regions as well as in the Balkans or Ukraine. Perhaps, as evidence of this type of transfer of technological or rather civilization achievements from the Near East to Europe could be considered Northern Pontic four-wheel wagons documented by iconographic representations and remains, dated also to the late 3rd millennium BC [Koško, Szmyt 2007]. As far as Anatolia is concerned, the wagon was since then a permanent element of economic and public life in this area, which is evidenced by the representations of wagons in ritual scenes [Littauer, Crouwel 1979: Figs. 38, 57, 58; Bollweg 1999: 19, 24-25, 28]. The Kanesh texts illustrate well the significance of wagons for the comparative study of different regions because they describe the borderland of three important countries of the Orient: Anatolia, northern Mesopotamia and Syria. Hence they suggest that the situation was shared by all three of them. The use of still another means of transport in Anatolia is suggested by Dercksen who claims that merchants from Kanesh sometimes hired large groups of porters to send their wares to other cities. It seems, however, that in the long run it was not a good solution as hiring porters was rather expensive [Dercksen 1996: 61-63].

The Amarna letters show that in the latter half of the 2nd millennium BC, the most popular means of transport, especially of envoys visiting the royal courts of the Orient, became the chariot, playing also a very important role on the battlefields of those times [Stillman, Tallis 1984: 136-148]. Then, missions set out for foreign

countries in several such vehicles, most often five, and this must have been the reason for keeping roads in good order at least close to capitals or other important places of a country. The letters often mention gifts sent for the other party; among the most valuable objects chariots are listed regularly, with their different categories and horses to draw them being sometimes given as well. In letter no. XV/XVI, a reference is made to a royal chariot, of a better quality, and two chariots not meant for the king, of a poorer quality [Moran 1992: 2, 7, 21-23, 37-41]. Chariots and teams of horses as royal gifts for allied rulers are mentioned in e.g. Amarna I, III (material for ten chariots and horses for ten teams), XI (a request for chariots from Egypt), etc. We can surmise that next to light chariots, in which envoys travelled, expeditions were equipped in light wagons to carry gifts. Sometimes, a mission included members of a royal family, in particular daughters about to be given in marriage. Then, such a mission could have up to several thousand people. On such occasions, a large number of vehicles must have been absolutely necessary [Moran 1992: 21-22, EA 11]. Finally, to a great significance and popularity of chariots in the then Near East testifies a greeting very often used in letters found in the archives. Among people and institutions who are wished happiness chariots are regularly mentioned: "All is well with me. May you, your household, your wives, your sons, your country, your chariots, your horses, your officers do very well" [Moran 1992: Introduction: 32]. Although the Amarna period ends in the 13th century BC, the situation was undeniably true for international relations in the Orient until the end of the Bronze Age in the 13th century BC.

4. CONCLUSIONS

It follows from the above analysis that from the dawn of history in the Near East through successive millennia the region witnessed continuous and intensive development of trade routes and commercial exchange. The development continued despite recurrent political upheavals and collapse of successive, ever more developed statehood structures, extending in stages to more and more distant lands. The spreading of trade was accompanied by ever more complex means of transport. The course of communication routes adjusted to the development of human societies, which needed specific raw materials and goods to be found in other countries. The intensity of trade, in turn, was proportional to the rate of development of individual cities and states. As a rule, the routes led from mountainous regions to lowlands where urban civilizations flourished. In the Near East this resulted in the east-west

or north-south arrangement of the road network. Also, routes often followed river valleys because it was there that important cities were located.

Among the means of transport, boats and pack animals dominated. They had been used since the beginning of permanent settlement in western Asia. Being the most advanced invention in the Near East trade, the transport wagon, when appeared in Iran, Mesopotamia and Anatolia already in the middle of the 3rd millennium BC, was an important breakthrough which showed that trade and communication were more intensive than appeared from written records. The two kinds of sources culminated in the early 2nd millennium BC to render a picture known as the Old Assyrian trade. Traditionally, it was viewed as an exceptional development but perhaps it should be treated as typical of the times and region. Undeniably, it shows how far commercial exchange advanced and how well trade was organized in the first half of the 2nd millennium BC. The extensive commercial exchange among different countries of the Orient resulted in the spreading of other inventions and novelties related to the economic and spiritual advancement of the region. It can be safely claimed that the spreading of writing in successive countries outside Mesopotamia was a side effect of the growth in commercial exchange.

Finally, it must be stressed that it is not known where the limits of the system of trade and routes, which developed in western Asia, were. What we know though is that it operated in the Orient, whence numerous written records come, but it is possible that it extended to other regions. We know that it covered parts of Iran and possibly the shores of the Black Sea. The strong positions of Zalpa and Wilusa (Troy), and numerous references to the kingdom of Ahhiyawa encountered in Hittite texts suggest that they were important points of contact between the civilizations of the Orient with the cultures of prehistoric Europe. Staying in close contact with the Hittite kingdom, such centres and Ahhiyawa could have contributed to the transfer of civilization achievements of the Orient in the direction of the Balkans and Ukraine. This is highly probable, although poorly documented as yet. Therefore, one can expect that next excavation seasons on the Black Sea will show the scope and consequences of such contacts in ever greater detail.

Translated by Piotr T. Żebrowski

ABBREVIATIONS

- AA – Archäologischer Anzeiger. Berlin
ActaArch – Acta Archaeologica. Copenhagen
ActaArchHung – Acta Archeologica Academiae Scientiarum Hungaricae. Budapest
- AAS – Anatolian Archaeological Studies. Tokio
AJA – American Journal of Archaeology. New York
AoF – Altorientalische Forschungen. Berlin
AnSt – Anatolian Studies. London
APŚ – Archeologia Polski Środkowoschodniej. Lublin
ARM 4 – Dossin G., Lettres. Textes cunéiformes, vol XXV. Musée du Louvre, Département des Antiquités Orientales, 1951. Paris
- AVL – Arkheologia Vostochno-Evropeiskoi Lesostepi. Voronezh
BAR IS – British Archeological Raports. International Series. Oxford
BICS – Bulletin of the Institute of Classical Studies of the University of London. London
- BPS – Baltic-Pontic Studies. Poznań
BSA – The Annual of the British School at Athens. London
CAD – Assyrian Dictionary of the Oriental Institute of the University of Chicago, I.J. Gelb, B. Landsberger, A.L. Oppenheim, E. Reiner (Eds), 1964 - . Chicago
- JBS – Journal of Baltic Studies. Abingdon
JCH – Journal of Cultural Heritage. Amsterdam
JCS – Journal of Cuneiform Studies. Chicago
JESHO – Journal of the Economic and Social History of the Orient. Leiden
- JIES – The Journal of Indo-European Studies. Waschington D.C.
JRAI – Journal of the Royal Anthropological Institute. London
JRGZM – Jahrbuch der Römisch-Germanischen Zentralmuseums Mainz. Mayence
- KSIA – Kratkiye soobscheniya Instituta Arkheologii. Moskva
KSIIMK – Kratkiye soobscheniya Instituta Materialnoy Kultury. Moskva
MDP 22 – Scheil V., Actes juridiques susiens. Mémoires de la mission archéologique de Perse, Vol XXII, 1930. Paris
- MIA – Materialy i issledovaniya po Arkheologii SSSR. Moskva-Leningrad
- NA IA NANU – Nauchniy Arkhiv Instytutu Arkheologii Natsionalnoy Akademii Nauk Ukrainy. Kiev

- NHMU – National History Museum of Ukraine. Kiev
 OJA – Oxford Journal of Archaeology. Oxford
 PBS 8/2 – E. Chiera, *Old Babylonian Contracts*, 1922. Philadelphia
 Posiedzenia P.I.G. – Posiedzenia Państwowego Instytutu Geologii. Warszawa
 PPS – Proceedings of the Prehistoric Society. London
 PZ – *Prähistorische Zeitschrift*. Berlin
 RA – *Rossiyska Arkheologiya*. Moskva
 RA 36 – *Revue d'Assyriologie et d'Archeologie orientale*, 1938. Paris
 Riftin – A.P. Riftin, *Staro-vavilonskie iuridicheskie i administrativnye dokumenty v sobraniakh SSSR*, 1937. Moskva
 SA – *Sovetska (Sovetskaja) Arkheologiya*. Moskva
 UET V – H.H. Figulla, Martin W.J., *Letters and Documents of the Old Babylonian Period. Ur Excavation Texts*, 1953. London
 VDI – *Viestnik Drevney Istorii*. Moskva
 WA – *Wiadomości Archeologiczne*. Warszawa
 ZA – *Zeitschrift für Assyriologie*. München

REFERENCES

- Akulov A.G.
 1996 Ob odnom archeologicheskom sjuzhete. In: *Severo-Vostochnoe Priazovye v sisteme evraziyskikh drevnostej (eneolit – bronzovyi vek)* 1: 123-126. Donetsk.
- Alechin W.W.
 1951 *Geografija rastienii*. Moskva.
- Alekseyeva E.M.
 1978 *Antichnye busy v Severnom Prichernomorie*. Moskva.
- Andrałójć M.
 1993 Pochówki psów kultury łużyckiej na stanowiskach 12 i 13 w Kołudzie Wielkiej (gm. Janikowo, woj. bydgoskie). *Ziemia Kujawska* 9: 183-199.
- Andreou S., Fotiadis M., Kotsakis K.
 1996 The Neolithic and Bronze Age of Northern Greece. *AJA* 100: 573-574.
- Andrieşescu J.
 1926 Consideratiuni asupra tezaurului dela Vălci-Trăn, lângă Plevna (Bulgaria). *Memoriile Secțiunii Istorice* 5: 7-48.

Androsov A.V., Marina Z.P., Zavgorodny D.I.

1991 Eneolitieskiy kurgan u sela Boguslav v prisamare. In: *Problemy archeologii Podneprovya*, 4-19. Dnipropetrovsk.

Androsov A.V., Yaremenko I.I., Martiushenko D.V.

1990 Kurgany epokhi eneolita – bronzovogo veka Kamenskogo polya. In: *Issledovaniya po arkheologii Podneprovya*, 4-22. Dnipropetrovsk.

Andrzejowska M.

2008 Stanowisko ze schyłku epoki brązu i z wczesnej epoki żelaza w Dziecinowie, pow. otwocki. *Wiadomości Archeologiczne* 60: 225-315.

Anthony D.

1986 The “Kurgan Culture”, Indo-European origins, and the domestication of the horse: a reconsideration. *Current Anthropology* 27 (4): 291-213.

1998 The Opening of the Eurasian Steppe at 2000 BC. In: V.H. Mair (Ed.) *The Bronze Age and Early Iron Age Peoples of Eastern Central Asia*. Vol. 1, 63-99. Washington.

Anthony D., Brown D.

2000 Eneolithic horse exploitation in the Eurasian steppes: diet, ritual and riding. *Antiquity* 74: 75-76.

Angel L.J.

1973 Human Skeletons from Grave Circles at Mycenae. In: G.E. Mylonas (Ed.) *Ο Ταφικός Κύκλος Βτων Μυκηναων*, 379-397. Athens.

Archibald Z.

2002 The Shape of the New Commonwealth. Aspects of the Pontic and Eastern Mediterranean Regions in the Hellenistic Age. In: G.R. Tsetschladze, A.M. Snodgrass (Eds) *The Greek Settlement in the Eastern Mediterranean and the Black Sea*. *BAR IS* 1062: 49-72.

Archiwum

2003-2007 Archiwum kwerendy zbiorów muzealnych i quasimuzealnych z trasy “szlaku Bałtyk- Bug-Boh- Pont”, Dokumentacja elektroniczna – maszynopis w zbiorach Zakładu Prahistorii Polski, Instytutu Prahistorii UAM (Electronic documentation – typescript held in the archives of the Dept. of Polish Prehistory, AMU Institute of Prehistory). Poznań.

Artemenko I.I.

1961 *Plemena Verkhnego i Srednego Podneprovya v epokhu bronzy*. Moskva.

1964a Neoliticheskie stoyanki i kurgany epokhi bronzy bliz s. Khodosovichi, Gornskoy obl. BSRR. In: *Pamyatniki kamennogo i bronzovogo vekov Evrazii*, 31-67. Moskva.

1964b Verhnee Podneprove v epohu pozdnego neolita i bronzy. *KSLA* 101:9-18.

1967 *Plemena verkhnego i srednego Podneprovya v epokhu bronzy*. Moskva.

- 1976 Mogilnik srednedneprovskoy kultury v urochische Strelitsa. In: *Eneolit i bronzovyi vek Ukrainy*, 69-96. Kiev.
- 1985 Srednedneprovskaya kultura. In: D.Ja. Telegin (Ed.) *Pervobytnaya arkheologiya. Arkheologiya Ukrainiskoy SSR*, T. I, 364-375. Kiev.
- 1987a Kultury shnurovoj keramiki: srednedneprovskaya, podkarpatskaya, gorodokskozdolbitskaya, stzhizhovskaya kultury. In: *Epokha bronzы lesnoy polosy SSSR*, 35-51. Moskva.
- 1987b Sviazi plemen srednedneprovskoy kultury. In: *Mezhplemennye sviazi epoki bronzы na terrytorii Ukrainy*, 6-16. Kiev.
- 1987c Komarovskaja kultura. In: O.N. Bader, D.A. Kraynov, M.F. Kosarev (Eds) *Epocha bronzы lesnoy polosy SSSR. Arkheologia SSSR*, 113-116. Moskva.
- Artursson M., Nicolis F.
- 2007 Cultural Relations Between the Mediterranean and the Baltic Seas during the Bronze Age? The Evidence from Northern Italy and Southern Scandinavia. In: I. Galanaki, H. Tomas, Y. Galanakis, R. Laffineur (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders. Aegaeum 27*: 331-342. Liège.
- Astour M.
- 1995 Overland Trade Routes in Ancient Western Asia. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 1401-1420. London – New York.
- Atlas
- 2005 *Polonia. Atlas map z XVI – XVIII wieku*. Warszawa.
- Atlas Świata
- 1962 PWN
- Avilova L.I., Orlovskaya L.B.
- 2003 Radiouglerodnyi metod i problemy datirovania bronzovogo veka. *KSI&A* 214: 9-20.
- Avruch K.
- 2000 Reciprocity, Equality, and Status – Anxiety in the Amarna Letters. In: R. Cohen, R. Westbrook (Eds) *Amarna Diplomacy. The Beginnings of International Relations*, 154-164. London – Baltimore.
- Baczyńska B.
- 1994 *Cmentarzysko kultury mierzanowickiej w Szarbi, woj. Kieleckie. Studium obr&odku pogrzebowego*. Kraków.
- Bader O.N.
- 1970 *Bassejn Oki v epohu bronzы*. Moskva.
- Bagińska J., Machnik J.
- 2003 Wyniki ratowniczych badań zniszczonego kurhanu na stanowisku 31 w Werszczyca, pow. Tomaszów Lubelski na Grzędzie Sokalskiej. Wyodrębnienie

- grupy sokalskiej kultury ceramiki sznurowej. *Archeologia Polski Środkowo-wschodniej* 4: 38-57.
- Bagušienė O., Rimantienė R.
1974 Akmeniniai gludinti dirbiniai. In: R. Rimantienė (Ed.) *Lietuvos TSR archeologijos atlasas, T. I, Akmens ir žalvario amžiaus paminklai*, 84-205. Vilnius.
- Bakker J.A.
1976 On the Possibility of Reconstructing Roads from the TRB Period. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek, jaargang* 26: 63-91.
- Bakker J.A., Kruk J., Lanting A.E., Milisauskas S.
1999 The Earliest Evidence of Wheeled Vehicles in Europe and the Near East. *Antiquity* 73 (282): 778-790.
- Balaguri E.A., Krushelnicka L.I., Pavliv D.Ju., Popovich I.I., Sveshnikov I.K., Peleshchishin, N.A., Maleev Ju.N.
1990 *Arkheologia Prikarpatya, Volini i Zakarpatty. Eneolit, bronz a i rannee zelezo*. Kiev.
- Balcer B.
1975 *Krzemień świeciechowski w kulturze pucharów lejkowatych. Eksploatacja, obróbka i rozprzestrzenienie*. Wrocław.
1981 Związki między kulturą pucharów lejkowatych (KPL) a kultura trypolską na podstawie materiałów krzemiennych. In: T. Wiślański (Ed.) *Kultura pucharów lejkowatych w Polsce (studia i materiały)*, 81-91. Poznań.
1983 *Wytwórczość narzędzi krzemiennych w neolicie ziem polskich*. Wrocław.
- Balcer B., Machnik J., Sitek J.
2002 *Z pradziejów Roztocza. Na ziemi zamojskiej*. Kraków.
- Balon J.
1998 Regiony fizycznogeograficzne. In: *Encyklopedia Geograficzna Świata. Europa*, 60-67. Kraków.
- Bandrivsky M.
2002 *Mogilnik v Petrikovi bilja Ternopolya v konteksti pochovalnogo obryadu visocko kulturi*. Lviv.
2003 Poselennya rannzaliznogo viku u Winnikach ta problema zavershalnogo etapu isnuvannya visocko kulturi. *Arkheologii doslidzhennja Lvivskogo universitetu* 6: 204-219. Lviv.
2006 Klepani "kazany" i dvolezovi sokyry: shchodo vytokiv relegiynykh ujaven na zakhodi Ukrainskoho Lisostepu v pizniy period epokhy bronzы. In: *Materiały i doslidzhennya z arkheologii Prykarpatya i Volyni*, 11: 38-64. Lviv.
- Bandrivsky M., Krushelnicka L.
1998 Osnovni periodi rozvitku visocko kulturi (za materiałami pochovalnich

- pamyatok), *Zapiski Naukovogo Tovaristva imeni Shivchenka* 235: 193-247. Lviv.
- Bard K.A.
 2000 The Emergence of the Egyptian State (c. 3200–2686 BC). In: I. Shaw (Ed.) *The Oxford History of Ancient Egypt*, 61-88. Oxford.
- Bartelheim M.
 1998 Studien zur böhmischen Aunjetitzer Kultur – Chronologische und chorologische Untersuchungen. *Universitätsforschungen zur prähistorischen Archäologie*, Bd. 46. Bonn.
- Bass G.F.
 1995 Sea and River Craft in the Ancient Near East. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 1421-1432. London – New York.
- Bátora J.
 2006 *Štúdie ku komunikácii medzi strednou a východnou Európou v dobe bronzovej*. Bratislava.
- Beck C.W.
 1966 Bemerkungen zur infrarotspektroskopische Herkunftsbestimmung von Bernstein. *JRGZM* 13: 292-295.
- Bednarek R., Prusinkiewicz Z.
 1997 *Geografia gleb*. Warszawa.
- Benecke N.
 1998 Diachroner Vergleich der Pferdehaltung im Karpatenbecken und in der osteuropäischen Steppe während der vorchristlichen Metallzeiten. In: B. Hänsel, J. Machnik (Ed.) *Das Karpatenbecken und die osteuropäischen Steppe. Nomadenbewegungen und Kulturaustausch in der vorchristlichen Metallzeiten (4000–500 v. Chr.)*, 91-98. München – Rahden/Westfalen.
- Berezanskaya S.S.
 1972 *Sredniy period bronzovogo veka v Severnoy Ukraine*. Kiev.
 1998 Hordeevka – ein bronzzeitliches Kurhan-Gräberfeld am Südlichen Bug. In: B. Hänsel, J. Machnik (Eds) *Das Karpatenbecken und die osteuropäische Steppe*, 324-341, München – Randen/Westfalen.
 1999 Mogilnik epokhi bronzy Gordeevka na Yuzhnom Bugie. *RA* 4: 148-153.
- Bereznaskaya S.S, Goshko T.J, Samolyuk V.O
 2004 Kollektivne pochovannja tshtsineckoy kulturi na r. Goryn'. *Archeologiya* 1: 111-125.
- Berezanskaya S.S., Kločko, V.I.
 1998 Das Gräberfeld von Hordeevka. *Archäologie in Eurasien* 5. Rahden/Westfalen.

Berezanskaya S.S., Lobay B.I.

1994 Kurganniy mogilnik bronzovoy doby poblizu s. Gordižvka na Pivdiennomu Buzi. *Arkheologia* 1994 (4): 140-153.

Berezanskaya S.S., Okhrimenko H.V., Pyasetsky V.K.

1987 Novi pamiatky skhidnotshynetskoï kultury na Volyni. *Arkheologia* 60: 50-58.

Berezanskaya S.S., Shumova B.O.

2002 Gordiyvskiy mogilnik: kompleks obryadovo-pokhovalnogo burshtynu. In: *Naukovi zapiski* 20 (1): 151-154. Kiev.

Berounská M.

1987 Bulavy ve středni Evropé. *Praehistorica* 13: 27-61.

Bernbeck R.

2004 Gesellschaft und Technologie im frugeschichtlichen Mezopotamien. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 49-68. Mainz am Rhein.

Bessonova S.S.

2007 Fiala iz Bratoliubovskogo kurgana. K voprosy o kompozitsii. In: *Muzeini chytannia. Materialy Mizhnarodnoi konferentsii "Yuvelirne mystetstvo – pohliad kriz viky"*. Kiev.

Bidzilya V.I., K.P. Bunyatyan, A.V. Nikolova

2005 Kurgan dobi bronzi bila s. Kochubeivka na Umanshchini. In: *Na poshanu Sofii Stanislavivni Berezanskoy (zbirka naukovikh prac)*, 118-131. Kiev.

Bieliński P.

1985 *Starozytny Bliski Wschód; Od początków gospodarki rolniczej do wprowadzenia pisma*. Warszawa.

1991 *Ubajd Północny*. Warszawa.

Bierezańska Z.

1972 Kultura trzciniecka na Ukrainie. *Archeologia Polski* 17: 259-305.

Blajer W.

1998 Przyczynek do dyskusji o znaczeniu metalurgii brązu w zachodnim odłamie kultury trzcinieckiej. In: A. Koško, J. Czebreszuk (Eds) *"Trzciniec" – system kulturowy czy interkulturowy proces?*, 337-342. Poznań.

Bloedow E.

1988 The Trojan War and Late Helladic III C. *PZ* 63: 23-53.

1999 "Hector is a lion": new light on warfare in the Aegean Bronze Age from the Homeric simile. In: R. Laffineur (Ed.) *Problemos. Le contexte guerrier en Egée à l'Age du Bronze*. *Aegaeum* 19: 285-293. Liège.

Bobrinsky A.A.

1887 *Kurgany i sluchainye archeologicheskie nakhodki bliz mestechka Smela I*. Sankt Petersburg.

- 1894 *Kurgany i sluchainnye archeologicheskie nakhodki bliz mestechka Smela II*. Sankt Petersburg.
- Bochkarev V.S.
- 1968 Problema Borodinskogo klada. *Problemy Arkheologii* 1: 129-154.
- 1995 Kulturogenез i razvitiе metalloproizvodstva v epokhu pozdnei bronzy. In: *Drevnie indoiranskіe kultiury Volgo-Uralya (II tys. Do n. e.)*, 114-123. Samara.
- 2006 Severopontiyskoe metalloproizvodstvo epokhi pozdnei bronzy. In: *Materialy tematicheskoi nauchnoi konferentsii "Proizvodstvennye tsentry: Istochniki, 'dorogi', areal raspostraneniya"*, 53-74. Sankt Petersburg.
- de Boer J.G.
- 2007 The Earliest Possible Date of Greek Colonisation along the Western Pontic Area. In: I. Lazarenko (Ed.) *Ancient Civilisations and the Sea. International Conference a Tribute to the 70th Anniversary of prof. Michail Lazarov, Varna 13th-15th October 2004, Acta Musei Varnaensis* 5, 121-140. Varna.
- Bogatyriev P.
- 1979 *Semiotyka kultiury ludowej*. Warszawa.
- Bokiy N.M.
- 1993 Znakhidky kifskey zbroj z Kirovogradschyny. In: *Naukovi zapysky z istorii Ukrainy* 2: 87-92. Kirovograd.
- Bollweg J.
- 1999 Vorderasiatische Wagentypen im Spiegel der Terracottaplastik bis zur Altbabylonischen Zeit. *Orbis Biblicus et Orientalis* 167. Göttingen.
- Boltryk Y.V.
- 1990 Sukhoputnye kommunikatsii Skifii (po materialam novostroechnykh issledovaniy ot Priazovya do Dnepra). *SA* 4: 30-43.
- 2000 Osnovnoy torgovyy put' Olvii v Dneprovskoe lesostepnoe Pravoberezhe. In: *RA* 1: 121-130.
- 2004 Socialnaia struktura Skifii 4 v. do R.X., otrazhennaia v pogrebalnykh pamiatnikakh. In: *Kimmerowie, Scytowie, Sarmaci. Księga poświęcona pamięci prof. T. Sulimirskiego*, 85-91. Kraków.
- Bondar N.N.
- 1974 *Poselenia Srednego Pondeprovia epokhi rannei bronzy*. Kiev.
- 1990 Poselenie epokhi rannei bronzy na Nizhnem Dnepre. In: *Issledovania po arkheologii Podneprovia*, 38-50. Dnipropetrovsk.
- Bonev A.
- 1995 The Gold Treasure from the Vulchitrun Village (Pleven District) and the Problems of Cultural Contacts in Southeast Europe in the Second Half of the Second Millennium BC. In: D.W. Bailey, I. Panayotov (Eds) *Prehistoric Bulgaria*, 277-289. Madison.

Boratyńska K.

- 1993 Systematyka i geograficzne rozmieszczenie. In: W. Bugała (Ed.) *Grab zwyczajny – Carpinus betulus L. Nasze drzewa leśne*, 17-50. Poznań – Kórnik.

Boratyńska K., Boratyński A.

- 1990 Systematics and geographical distribution. In: S. Białobok (Ed.) *Buk zwyczajny. Fagus sylvatica L. Nasze drzewa leśne*, 27-73. Warszawa – Poznań.

Borchhardt J.

- 1972 *Homerische Helme*. Mainz.

Boroffka N.

- 1998 Bronze- und früheisenzeitliche Geweihtrensenknebel aus Rumänien und ihre Beziehungen. Alte Funde aus dem Museum für geschichte Aiud Teil 2. *Eurasia Antiqua* 4: 81-135.
- 2004 Bronzezeitliche Wagenmodelle im Karpatenbecken. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 347-354. Mainz am Rhein.

Boroffka N., Ciemy J., Lutz J., Parzinger H., Pernicka E., Weisgerber G.

- 2002 Bronze Age Tin from Central Asia. In: K. Boyle, C. Renfrew, M. Levine (Eds) *Ancient Interactions: East and West in Eurasia*, 135-159. Cambridge.

Bouzek J.

- 1985 *The Aegean, Anatolia and Europe: Cultural Interrelations in the Second Millennium BC*. Göteborg.
- 1996 Greece and the Aegean Area and its Relation with Continental Europe. *ActaArch* 67: 175-181.
- 2005 Urbanisation in Thrace. In: J. Bouzek, L. Domaradzka (Eds) *The Culture of Thracians and Their Neighbours. BAR IS 1350*: 1-7.

Bóna I.

- 1975 *Die Mittlere Bronzezeit Ungerns und Ihre Südöstlichen Beziehungen*. Budapest.

Bratchenko S.N.

- 2007 Katakombne “baroko” z obami ta pentlyami v sistemi ornamentatsiyi. In: *Materiyali ta doslidzhennya z arkheologii Skhidnoyi Ukrainy 7*, 103-109. Luhansk

Bratchenko S.N., Sanzharov S.N.

- 2001 *Ridkisini bronzovi znariaddia z katakomb Siverskodonechynny ta Donshchyny 3-go tys. do n.e.* Luhansk.

Bratchenko S.N., Shaposhnikova O.G.

- 1985 Katakombnaya kulturno-istoricheskaya obshchnost. In: *Arkheologiya ukrainskoy SSR*, vol. 1, 403-420. Kiev.

Bratchenko S.N., Shvecov M.L.

1991 Severskodentskie kakakombnye pogrebeniya na reke Krasnala. In: *Katakombnye kultury Severnogo Prichernomorja*, 165-186. Kiev.

Braychevskiy M.Y.

1959 *Rymska moneta na terytorii Ukrainy*. Kiev.

Brea M.B., Cardarelli A., Cremasche M.

1997 *La Terramare*. Milan.

Breymeyer A.

1991 Ekosystemy. In: L. Starkel (Ed.) *Geografia Polski. Środowisko przyrodnicze*, 514-547. Warszawa.

Brjusov A.Ja., Zimina M.P.

1966 *Kamennye sverlenye boevye topory na territorii evropejskoy chasti SSSR*. Moskva.

Bronicki A.

1991 Późnoneolityczne i wczesnobrązowe toporki kamienne z obszaru województwa chełmskiego. In: J. Gurba (Ed.) *Schylek neolitu i wczesna epoka brązu w Polsce Środkowowschodniej*, 297-340. Lublin.

1997 Zimne, rejon Włodzimierz Wołyński, osada z okresu neolitu – stan badań i zakres problematyki badawczej. In: J. Ilkjaer, A. Kokowski (Eds) *20 lat archeologii w Masłomęczu I*: 35-48. Lublin.

Bronicki A., Kadrow S.

1987 Osada neolityczna w Majdanie Nowym, woj. Chełm. *Sprawozdania Archeologiczne* 39: 89-129.

1998 Schyłkowoneolityczne topory kamienne z terenu województwa chełmskiego. *Metrologia. Zagadnienie utylizacji egzemplarzy uszkodzonych i destruktywów*. *APS* 3: 260-275.

Bronicki A., Kadrow S., Zakościelna A.

2003 Radiocarbon Dating of the Neolithic Settlement in Zimne, Volhynia, in Light of the Chronology of the Lublin-Volhynia Culture and the South-Eastern group of the Funnel Beaker Culture. In: A. Kośko (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper*. *BPS* 12: 22-66.

Bronk Ramsey C.

2005 OxCal v. 3.10, Oxford (www.rlaha.ox.ac.uk)

Brovender Ju.M.

1997 K voprosu o vydelenii dono-donetskoj proizvodstvennoi zony metallurgii i metallobrabotki v epokhu pozdnei bronzy. In: *Materialy 3-go Ukrainsko-Rossiyskogo polevogo seminaru "Doba bronzy Dono-Donetskogo regiony"*, 6-11. Kiev – Voronizh – Perevalsk.

- 2005 Marmyshskiy proizvodstvennyi kompleks Donetskiego gorno-metallyrgicheskogo tsentra epokhi bronzы (nekotorye itogi issledovaniy). In: *Materialy II-go mizhnarodnogo Marmyskogo polyovogo seminaru "Problemy girnychoi arkheologii"*, 11-23. Alchevsk.
- 2006 *Problemi girnoy arkheologii (Materiali III-go kartamiskogo polevogo arkheologichnogo seminaru)*. Alchevsk.
- 2007 Kartamysh Bronze Age Mining-Metallurgical Complex in the Eastern Ukraine. In: *The 2007 AEA Annual Conference "Eurasian Perspectives on Environmental Archaeology"*, 49-51. Poznań.
- 2008a O kharaktere i masshtabakh proizvodstvennoi dejatelnosti na Marmyshskom gorno-metallurgicheskom komplekse epokhi bronzы. In: *Materialy VI Mezhdunarodnoi nauchnoi konferentsii "problemy istorii i arkheologii Ukrainy"*, 13. Kharkov.
- 2008b Tekhnogennyy uchastok rudnika Chervone Ozero-I (nekotorye itogi issledovaniy). *Drevnosti*: 23-28. Kharkov.
- Brovender Ju.M., Gayko G.I., Shubin Ju.P.
- 2005 Geologichni ta tekhnologichni ocblyvosti rozrobky midnykh rud v starodavnykh kopalnyakh Marmysha. In: *Materialy II-go mizhnarodnogo Marmyskoho polyovogo seminaru "problemy girnychoi arkheologii"*, 47-513. Alchevsk.
- Brovender Ju.M., Zagorodnyaya O.N.
- 2007 Formalno-tipologicheskyy analiz metalloproizvodstva berezhnovsko-maevskoi srubnoi kultury. In: *Materialy VI-go mizhnarodnogo Marmyskoho polyovogo seminaru "problemy girnychoi arkheologii"*, 52-68. Alchevsk.
- Bruyako I.V.
- 2005 *Rannie kochevniki v Evrope (X-V w. do R.X.)*. Kishinev.
- Bryce T.
- 2005 *The Kingdom of the Hittites*. Oxford.
- Buchholz H.-G.
- 1962 Die Pfeildlätter aus dem VI Schachtgrab von Mykene und die helladischen Pfeilspitzen. *Jahrbuch des Deutschen archäologischen Institute* 77: 1-58.
- 1983 Doppelälxte und die Frage der Balkanbeziehungen des Ägäischen Kulturkreises. In: A. Poulter (Ed.) *Ancient Bulgaria*, 43-134. Nottingham.
- Buchholz H.-G., Karageorghis V.
- 1972 *Altägäis und Altkyprus*. Leipzig.
- Buchvaldek M.
- 1986 Kultura se šňourovou keramikou ve střední Evropě I. Skupiny mezi Harcem a Bílými Karpaty. *Praehistorica* 12.
- 1998 Kultura se šňourovou keramikou ve střední Evropě II. Skupiny mezi honím Rýnem, Mohanem, a středním Dunajem. *Praehistorica* 23: 17-60.

Buchvaldek M., Koutecký D.

1970 Vikletice. Ein schnurkeramisches Gräberfeld. *Praehistorica* 3.

Bukowski Z.

1966 W sprawie genezy i rozwoju wysockiej grupy kultury łużyckiej. *Archeologia Polski* 11: 28-106.

1976 *Elementy wschodnie w kulturze łużyckiej u schyłku epoki brązu*. Wrocław.

1977 *The Scythians Influence in the Area of Lusatian Culture*. Warszawa – Wrocław – Kraków – Gdańsk.

1978 Oddziaływania obce w dorzeczu Sanu i górnego Bugu u schyłku II tysiąclecia p.n.e. *Materiały i Studia Muzealne (Przemysł)* 1: 29-49.

2002 *Znaleziska bursztynu w zespołach z epoki brązu i z wczesnej epoki żelaza z dorzecza Odry oraz Wisły*. Warszawa.

Bunyatyan K.P.

2002 Zakhidni migranti v Seredniy Naddnipyrianshini blizko seredini 3 tis. cal BC. In: *Materiyali ta doslidzhennya z arkheologii Skhidnoyi Ukrayini* 7: 92-94. Luhansk.

2003 Correlation between Agriculture and Pastoralism in the Northern Pontic Steppe Area during the Bronze Age. In: M. Levine, C. Renfrew, K. Boyle (Eds) *Prehistoric Steppe Adaption and the Horse*, 269-286. Cambridge.

2005 Khronologia i periodizatsia pokhovan seredniodniprovs koy kultury Pravoberezhnoi Ukrainy. *Arkheologiya* 4: 26-36.

2007 Zakhidni migranty v Seredniy Naddnipyrianshchyni blyzko seredyny 3 tys. cal BC. In: *Materiyaly ta doslidzhennya z arkheologii Skhidnoi Ukrainy* 7: 92-94. Luhansk.

2008 Khronologia i periodizatsia pokhovan seredniodniprovs koy kultury Pravoberezhnoi Ukrainy (continued). *Arkheologiya* 2: 3-12.

Bunyatyan K.P., Kaiser E., Nikolova A.V.

2005 *Bronzezeitliche Bestattungen aus Unteren Dneprgebiet*. Langenweissbach.

Burchard B., Jastrzębski S., Kruk J.

1991 Some Questions at Funnel Beaker Culture South-Eastern Group – an Outline. In: D. Jankowska (Ed.) *Die Trichterbecherkultur. Neue Forschungen und Hypothesen*. Teil II, 95-101. Poznań.

Burghardt A.F.

1971 A Hypothesis About Gateway Cities. *Annals of the Association of American Geographers* 61: 269-285.

Burmeister S.

2004 Der Wagen im Neolithikum und Bronzezeit: Erfindung, Ausbreitung und Funktion der ersten Fahrzeuge. In: M. Fansa, S. Burmeister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 1340. Mainz am Rhein.

Burtanescu F.

- 2002 Globular Amphora culture in Moldavia between the Carpathians and Prut. Current state of evidence. *Thraco-Dacica* 23 (1-2): 119-152.

Butler J.J.

- 1990 Bronze Age metal and amber in the Netherlands (I). *Paleohistoria* 32: 47-110.

Calkin V.I.

- 1960 Domashnie i dikiye zhyvotnye Severnogo Prichernomoria v epokhu rannego zeleza. *MIA* 53: 7-109.
1966 *Drevnee zhyvotnovodstvo plemen Vostochnoy Evropy i Sredney Azii*. Moskva.

Catalogue

- 1993 Katalog sluchaynykh nakhodok iz arkeologicheskoy sobraniy Donetskoj oblasti. *Arkeologicheskij Almanakh* 1. Donetsk.

Catling H.W.

- 1964 *Cypriot Bronzework in the Mycenaean World*. Oxford.

Chachlikowski P.

- 1996 Ze studiów nad pochodzeniem i użytkowaniem surowców importowanych w wytwórczości kamieniarskiej społeczności wczesnorolniczych Kujaw. In: J. Bednarczyk, A. Kośko (Eds) *Z badań nad genezą regionalizmu kulturowego społeczeństw Kujaw*, 121-153. Poznań – Kruszwica – Inowrocław.
1997 *Kamieniarstwo późnoneolitycznych społeczeństw Kujaw*. Poznań.
2010 Ze studiów nad identyfikacją i recepcją surowca bazaltowego w strefie circumbałtyckiego kręgu kulturowego. In: M. Ignaczak, A. Kośko, M. Szmyt (Eds) *Szlaki Międzymorza: Bałtyk-bug-Boh-Pont (od III do połowy I tys. przed Chr.)*. *Archaeologia Bimaris, Dyskusje* 4. Poznań (in print).

Charniauski Ma.

- 2001 Amber on Archaeological Sites of Belarus. In: *Acta Academiae Artium Vilnensis* 22: 141-144. Vilnius.
2006a Shosty sezon dasledavannia tarfianikovay styaniki Asavets 7. *Gistarychna-arkhealagichny zbornik* 21: 186-188. Minsk.
2006b Metalichnyya vyraby sa stayanak paunochnabelaruskay kultury. *Arkhealagichny zbornik* 1: 18-21. Minsk.

Charniauski Mi., Charniauski Ma.

- 2004 Unikalny typ kascianykh i ragavykh padvesak-amuletau sa stayanak Kryvinskaga tarfyaniku. *Gistarychna-arkhealagichny zbornik* 19: 28-30. Minsk.

Charniauski M.M., Lakiza V.L.

- 1995 Znahodki kamennykh svidravykh sjaker na Panjamonni. *Gistarychna-arkhealagichny zbornik* 7: 46-59.

Charpin D.

- 2004 *Historie Politique du Proche-Orient Amorrite (2002–1595)*. In: D. Charpin, D.O. Edzard, M. Stol (Eds) *Mesopotamien. Die altbabylonische Zeit*, 25-384. Göttingen.

Chernyakov I.T.

- 1981 *Zolotayachasha vulchetrunkogo tipa iz Severo-Zapadnogo Prichernomorya*. *SA* 1: 151-162.

Chernykh E.N.

- 1966 *Istoria drevneyshey metallurgii Vostochnoy Evropy*. *MIA* 88. Moskva.
 1970 *O drevneishykh ochagakh metalloobrabotki Jugo-zapada SSSR*. *KSIA* 126: 23-31. Moskva.
 1972 *Istoria metallurgii Vostochnoy Evropy v pozdnem bronzovom veke. Avtoreferat dissertatsii doc. ist. nauk*. Moskva
 1976 *Drevnyaya metalloobrabotka na Yugo-Zapade SSSR*. *MIA* 1. Moskva.
 1978a *Metallurgicheskyye provintsii i periodizatsiya epokhi rennego metalla na territorii SSSR*. *SA* 1: 162-166. Moskva.
 1978b *Gornoye delo i metallurgiya v drevneyshey Bolgarii*. Sofia.

Chernykh L.A.

- 2003 *Spektralanaluse und Metallverarbeitung in den früh- und mittelbronzezeitlichen Kulturen der ukrainischen Steppe als Forschungsproblem*. *Eurasia Antiqua* 9: 27-62. Berlin.
 2005 *O vozmozhnosti ispolzovania medno-rudnykh istochnikov Donbassa v period eneolita, srednei i pozdnei bronzy*. In: *Materialy II-go mizhnarodnoho Marmyskoho polyovoho seminaru "problemy girnychoi arkheologii"*, 293-302. Alchevsk.

Chochorowski J.

- 1993 *Ekspansja kimmeryjska na teren Europy Środkowej*. Kraków.
 1994 *Skifskie nabegi na terytoriu Sredney Evropy*. In: *RA* 3: 49-64.

Chomentowska B.

- 1989 *Osada kultury łużyckiej grupy tarnobrzesckiej w Zawadzie gmina Połaniec, woj. tarnobrzesckie w świetle dotychczasowych badań*. In: A. Barłowska, E. Szałapata (Eds) *Grupa tarnobrzescka kultury łużyckiej*, 325-342. Rzeszów.

Chugunov K.V., Parzinger H., Nagler A.

- 1996 *Kimmerowie, Scytowie Europy Sarmaci a Europa środkowa*. In: J. Chochorowski (Ed.) *Koczownicy Ukrainy* (Katalog wystawy Muzeum Śląskie), 107-138. Katowice.
 2007 *Der Fürstenkurgan Aržan 2*. In: *Im Zeichen des goldenen Greifen. Königsgräber der Skythen*, 69-82. München – Berlin – London – New York.

Clark J.G.D.

- 1957 *Europa przedhistoryczna. Podstawy gospodarcze*. Warszawa.

Cofta-Broniewska A., Koško A.

2002 *Kujawy w pradziejach i starożytności*. Inowrocław – Poznań.

Coles B.

1987 Tracks Across the Wetlands: Multi – Disciplinary Studies in the Somerset Levels of England. In: J.M. Coles, A.J. Lawson (Ed.) *European Wetlands in Prehistory*, 145-167. Oxford.

Coles J.M., Hibbet T.A.

1968 Prehistoric Roads and Tracks in Somerset, England: I Neolithic. *PPS* 34: 238-258.

Crouwel J.

2004a Bronzezeitliche Wagen in Griechenland. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 341-346. Maiz am Rhein.

2004b Der Alte Orient und seine Rolle in der Entwicklung von Fahrzeugen. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 69-86. Maiz am Rhein.

Csányi M., Tárnoki J.

1992 Katalog der ausgestellten Funde. In: W. Meier-Arendt (Ed.) *Bronzezeit in Ungarn. Forschungen in Tell-Siedlungen an Donau und Theiss*, 175-210. Frankfurt am Main.

Czarnowski S.

1956 Argonauci na Bałtyku. Konwencja a rzeczywistość w kształtowaniu się greckich pojęć geograficznych. *Dziela* III: 242-260. Warszawa.

Czebreszuk J.

2001a *Schylek neolitu i początki epoki brązu w strefie południowo-zachodniobałtyckiej (III i początki II tys. przed Chr.)*. Poznań.

2001b Północno-wschodnia rubeż oddziaływania idei Pucharów Dzwonowatych. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.* *Archaeologia Bimaris* 2: 327-339. Poznań.

2003 Amber on the Threshold of a World Career. In: C.W. Beck, I. Loze, J.M. Todd (Eds) *Amber in the Archaeology*, 164-179. Riga.

2007a The Role of the Sambian Center in Creating Cultural Meaning of Amber in the Third and Second Millennium BC. The Outline of Major Problems. In: J. Baron, I. Lasak (Eds) *Long Distance Trade in the Bronze Age and Early Iron Age*, 179-193. Wrocław.

2007b Wytwory z bursztynu. In: A. Koško, M. Szymt (Eds) *Opatowice, Wzgórze Prokopiaka*, Tom II: 223-228. Poznań.

- Czebreszuk J., Koško A., Makarowicz P., Szmyt M.
 2000 Podsumowanie. In: A. Koško (Ed.) *Archeologiczne badania ratownicze wzdłuż trasy gazociągu tranzytowego. III. Kujawy. Część 4. Osadnictwo kultur późnoneolitycznych oraz interstadium epok neolitu i brązu: 3900–1400/1300 przed Chr.*, 569-571. Poznań.
- Czebreszuk J., Koško A., Szmyt M.
 2008 The Horse, Wagon and Roads. In: *Proiskhozhdenie i rasprostranenie koleśnichestva*, 47-54. Luhansk.
- Czebreszuk J., Kryvaltsevich M.
 2003a The North-Eastern Border of Influence of Bell Beakers Idea. In: J. Czebreszuk, M. Szmyt (Eds) *The Northeast Frontier of Bell Beakers: Proceedings of the symposium held at the Adam Mickiewicz University, Poznan (Poland), May 26-29 2002. BAR IS 1155: 107-116.* Oxford.
 2003b Der Dolch aus Mesha, Nördliches Weissrussland: Glockenbechereinflüsse in Osteuropa. *Archäologisches Korrespondenzblatt* 1 (33): 51-56.
- Czebreszuk J., Kryvalcevič M., Makarowicz P. (Eds)
 2001 Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr. *Archaeologia Bimaris* 2. Poznań.
- Czebreszuk J., Szmyt M.
 1992 *Osadnictwo neolityczne i wczesnobrązowe w Dębach woj. wrocławskie stanowisko 29.* Poznań – Inowrocław.
 2007 Cmentarzysko ludności z początków epoki brązu. In: A. Koško, M. Szmyt (Eds) *Opatowice, Wzgórze Prokopiaka. Tom II: 273-283.* Poznań.
- Czerniak L.
 1980 *Rozwój społeczeństw kultury późnej ceramiki wstęgowej na Kujawach.* Poznań.
 1994 *Wczesny i środkowy okres neolitu na Kujawach 5400–3650 p.n.e.* Poznań.
- Czopek S.
 1992 *Południowo-wschodnia strefa kultury pomorskiej.* Rzeszów.
 1996 *Grupa tarnobrzeńska nad środkowym sanem i dolnym Wisłokiem. Studium osadniczo-kulturowe.* Rzeszów.
 1997 Uwagi o kulturze łużyckiej na Lubelszczyźnie. *Archeologia Polski Środkowowschodniej* 2: 210-226.
 2001 *Pysznicza, pow. Stalowa Wola, stanowisko 1 – cmentarzysko ciałopalne z przełomu epok brązu i żelaza.* Rzeszów.
 2003 Między Południem a Wschodem – importy i naśladownictwa ceramiki w materiałach grupy tarnobrzeńskiej. In: J. Gancarski (Ed.) *Epoka brązu i wczesna epoka żelaza w Karpatach polskich*, 215-238. Krosno.

- 2007a *Grodzisko Dolne, stanowisko 22 – wielokulturowe stanowisko nad dolnym Wisłokiem. Część I. Od epoki kamienia do wczesnej epoki żelaza*. Rzeszów.
- 2007b Uwagi o możliwościach archeologicznej identyfikacji Neurów. In: P. Berdowski, B. Blahaczek (Eds) *Haec mihi In animis vestris templa. Studia Classica In Memory of Profesor Lesław Morawiecki*, 407-422. Rzeszów.
- 2007c Związki dorzecza Wisły z terenami lasostepu ukraińskiego w epoce brązu i wczesnej epoce żelaza. In: L. Bakalarska (Ed.) *Wspólnota dziedzictwa archeologicznego ziem Ukrainy i Polski. Materiały z konferencji zorganizowanej przez Ośrodek Ochrony Dziedzictwa Archeologicznego, Łańcut (26-28 X 2005 r.)*, 213-225 Warszawa.
- 2007d Środkoeuropejska rubież kulturowa – między wschodem a zachodem w epoce brązu i wczesnej epoce żelaza. In: M. Dębiec, M. Wołoszyn (Eds) *U źródeł Europy Środkowo-Wschodniej: pogranicze polsko-ukraińskie w perspektywie badań archeologicznych*, 109-125. Rzeszów.
- Czopek S., Ormian K., Trybała K.
2005 Groby szkieletowe w tarnobrzeskiej kulturze łuzycyckiej a kultura Wysocka. In: S. Czopek (Ed.) *Problemy kultury Wysockiej*, 63-81. Rzeszów.
- Czopek S., Poradyło W.
2008 *Warzyce, pow. Jasło, stan. 17 – osada epoki brązu i wczesnej epoki żelaza*. Rzeszów.
- Czubiński Z.
1950 Zagadnienia geobotaniczne Pomorza. *Badania Fizjograficzne nad Polską Zachodnią* 2(4): 498-517.
- Daragan M.
2004 Periodisierung und Chronologie der Siedlung Žabotin. *Eurasia Antiqua* 10: 55-146.
- Daszkiewicz M., Prinke D.
2001 Problem relacji tzw. ceramiki pasmowo-grzebykowej i kultury pucharów lejkowatych na podstawie źródeł z Kujaw. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.* *Archaeologia Bimaris* 2: 121-129. Poznań.
- David W.
1997 Altbronzezeitliche Beinobjekte des Karpatenbeckens mit Spiralwirbel oder Wellenbandornament und ihre Parallelen auf der Peloponnes und in Anatolien in frühmykenischer Zeit. In: P. Roman (Ed.) *The Thracian World at the Crossroads of Civilization*, 247-305. Bucarest.
- 2001 Zu den Beziehungen zwischen Donau-Karpatenraum, osteuropäischen Steppengebieten und ägäisch-anatolischen Raum zur Zeit der mykenischen Schachtgräber unter Berücksichtigung neuerer Funde aus Südbayern. *Anados. Studies of Ancient World* 1: 51-80.

- 2002 *Studien zu Ornamentik und Datierung der bronzezeitlichen Depotfundgruppe Hajdúsámson-Apa-Ighiel-Zajta*. Alba Iulia – Karlsburg/Weissenburg.
- Davna istoriya
1997 *Davna istoriya Ukraini. Pervisne suspilstvo. Tom 1*. Kiev.
- Day J.V.
2001 *Indo-European Origins: The Anthropological Evidence*. Washington.
- Dąbrowski J.
1962 Materiały ze Strzyżowa, pow. Hrybeszow, a niektóre powiązania ziem Polski wschodniej i Ukrainy w późnej epoce brązu. In: *Materiały starożytne 8*: 7-41. Warszawa.
1972 *Powiązania ziem Polskich z terenami wschodnimi w epoce brązu*. Wrocław – Warszawa – Kraków – Gdańsk.
2004 *Ältere Bronzezeit in Polen. Starsza epoka brązu w Polsce*. Warszawa.
- Dąbrowski J., Hensel W.
2005 Metallgießerei in der älteren Bronzezeit in Polen. *PZ 80* (1): 5-48.
- Degórski M.
1984 Porównanie stopnia kontynentalizmu w Polsce określanego metodami klimatyczną i bioindykacyjną. *Przegląd Geograficzny 56*: 3-4.
- Demakopoulou K.
1996 *The Aidonia Treasure. Seals and Jewellery of the Aegean Bronze Age*. Athens
- Denisik G.I.
1998 Prirodnicza geografia Podolia. Vinnytsia.
- Dercksen J.G.
1996 *The Old Assyrian Copper Trade in Anatolia*. Istanbul.
- Dergachev V.A.
1986 *Moldavija i sosednie territorii v epochu bronzy*. Kisziniev.
1997 *Metallicheskie izdelia. K probleme genezisa kultur rannego Galschtata Karpato-Danubio-Nordpontiyskogo regiona*. Chisineu.
- Diamant E.I., Chernenko E.V.
1971 Skifskiy kinzhal iz Odesskogo muzeia. In: *Arkheologicheskie issledovania na Ukraine 2*: 159-160.
- Dickinson, O.T.P.K.
1977 *The Origins of Mycenaean Civilization*. Geteborg.
1999 Robert Drew's Theories About the Nature of Warfare in the Late Bronze Age. In: R. Laffineur (Ed.) *Problemos. Le contexte guerrier en Egée à l'Age du Bronze*. *Aegaeum 19*: 21-26. Liège.
- Dietz S.
1991 *The Argolid at the Transition to the Mycenaean Age. Studies in the Chronology and Cultural Development in the Shaft Grave Period*. Kopenhaga.

Diodor

1952 Biblioteka. Moskva.

Dolukhanov P.M.

1999 War and Peace in Prehistoric Eastern Europe. In: J. Carman, A. Harding (Eds) *Ancient Warfare*, 73-87. Stroud.

Doluchanow P.M., Tretjakov V.P.

1979 Dnepro-doneckiy neolit i kultura voronkovidnych kubkov k severu ot Karpat. *Acta Archaeologica Carpathica* 19: 37-50.

Domańska L.

1990 *Kaukasko-nadczarnomorskie wzorce kulturowe w rozwoju późnomezolitycznych społeczeństw Niżu strefy pogranicza Europy Wschodniej i Środkowej*. Inowrocław.

1995 *Geneza krzemieniarstwa kultury pucharów lejkowatych na Kujawach*. Łódź.

2006 Materiały krzemienne. In: A. Koško, M. Szmyt (Eds), *Opatowice – Wzgórze Prokopiaka I. Studia i materiały do badań nad późnym neolitem Wysoczyzny Kujawskiej I*, 223-235. Poznań.

Domańska L., Koško A.

1983 Łącko, pow. Inowrocław, stanowisko 6 – obozowisko z fazy I (“AB”) kultury pucharów lejkowatych. Z badań nad genezą rozwoju i systematyką chronologiczną kultury pucharów lejkowatych na Kujawach. *Acta Universitatis Lodzianensis. Folia Archaeologica* 4: 3-48.

Drews R.

1993 *The end of the Bronze Age. Changes in warfare and the catastrophe ca. 1200 B.C.* Princeton.

Driver G.R. Miles J.C.

1956 *The Babylonia Laws*. Vol. II. Legal Commentary. Oxford.

Dumitroaia G.

2000 *Comunități preistorice din nord-estul României: de la cultura cucuteni până în brinzul mijlociu*. Piatra-Neamț.

Ebert M.

1925 Fatjanovo-Kultur. In: *Reallexikon der Vorgeschichte*. T. 3, 192-193, Taf. 32. Berlin.

Ecsedy I.

1979 *The People of the Pit-Grave Kurgans in Eastern Hungary*. Budapest.

Epimachov A., Korjakova L.

2004 Streitwagen der eurasischen Steppe in der Bronzezeit: Das Wolga-Uralgebirge und Kasachstan. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 221-236. Mainz am Rhein.

- Evans A.
1914 *The "Tomb of the Double Axes" and Associated Group, and the Pillar Rooms and Ritual Vessels of the "Little Palace" at Knossos*. London.
- Ewert A.
1972 O obliczaniu kontynentalizmu termicznego klimatu. *Przegląd Geograficzny* 44 (2): 273-288.
- Fialko O.E., Boltryk Y.V.
2003 *Napad skifiv na Trakhtemyrivske gorodysche*. Kiev.
- Filov B.
1925 Zlatnite sudove ot Vulchitrun. *Izvestiya na Bulgarskiya Arkheologicheski Institut* 3: 230-233.
- Florek M., Tăras H.
2003 *Dacharzów. Cmentarzysko kultury trzcinieckiej*. Lublin.
- Fol A.
2000 *Ancient Thrace*. Sofia.
- Fol A., Schmitt R.
2000 A Linear A Text on Clay Reel from Drama, South-East Bulgaria? *PZ* 75: 56-62.
- Fomenko V.N., Klyushyntsev V.N., Balushkin A.M.
1987 Yamnoy pogrebenie s bulavoi iz Poinhulya. In: *Drevneishie skotovody stepei yuga Ukrainy*, 43-47. Kiev.
- Foss M.E.
1952 *Drevnieyshaja istoriya severa evropejskoy chasti SSSP*. Moskva.
- Frank A.G.
1993 Bronze Age World System Cycles. *Current Anthropology* 34: 383-429.
- French E.
1969 The First Phase of LH IIIC. *AA* 84: 133-136.
- Frost H.
1970 Stone Anchors as Indicators of Early Trade Routes. In: M. Mollot (Ed.) *Sociétés et compagnies de commerce en Orient et dans l'Océan Indien, Actes du huitième colloque international d'histoire maritime*, 55-61. Paris.
- Furholt, M.
2003 Die absolutchronologische Datierung der Schnurkeramik in Mitteleuropa und Südkandinavien. *Universitätsforschungen zur prähistorischen Archäologie*. Band 101. Bonn.
- Gadzjackaja O.S.
1963 Fatyanovskie pamyatniki Vladimirskoy oblasti. *KSI* 93: 49-54.
1964 Fatyanovskiy mogilnik u der. Krivcovo. *KSI* 101: 126-134.

- 1976 Pamyatniki fatyanovskoy kultury. Ivanovsko-gorkovskaya gruppa. Arheologiya SSSR. *Svod arheologicheskikh istochnikov V1-21*. Moskva.

Gaius Plinius Secundus.

- 1819 *Yestestvennaya istoria*. Sankt Petersburg.

Gajewski L.

- 1949 Kultura czas lejowatych między Wisłą a Bugiem. *Annales Universitatis Mariae Curie-Skłodowska, Sectio F 4*: 1-194.

Galanina L.K.

- 1997 *Kelermesskie kurgany. "Tsarskie" pogrebenia ranneskijskoy epokhi*. Moskva.

Gale N.H., Stos-Gale Z.A.

- 1986 Oxhide Copper Ingots in Crete and Cyprus and the Bronze Age Metals Trade. *BSA 81*: 81-100.

Galibin V.A.

- 1990 Drevnie splavy na mednoy osnove. In: *Drevnie pamyatniki Kubani, 175-182*. Krasnodar.
- 1991 Osobennosti sostava nakhodok iz tsvetnogo i blagorodnogo metalla iz pamyatnikov Severnogo Kavkaza epokhi ranney i sredney bronzy. In: *Drevnie kultury Prikubanya, 59-62*. Leningrad.

Gancarski J.

- 1988 Wstępne sprawozdanie z badań osady trzciniecko-otomańskiej na stanowisku nr 29 w Jaśle, województwo krośnieńskie. *Acta Archaeologica Carpatica 27*: 61-83.
- 2002 (Ed.) *Między Mykenami a Bałtykiem. Kultura Otomani-Füzesabony*. Krosno – Warszawa.

Gasche H., Armstrong J.A., Cole S.W., Gurzadyan V.G.,

- 1998 *Dating the Fall of Babylon. A Reappraisal of Second Millennium BC. Mesopotamian History and Environment II*. Ghent.

Gašaj D.

- 2003 Między Mykenami a bałtykiem. In: J. Gancarski (Ed.) *Między Mykenami a Bałtykiem. Kultura Otomani-Füzesabony*. Krosno – Warszawa.

Gaskevich D.

- 2001 Neolitizatsiya Pivdenного Polissya: charakter ta napryamki mizhkulturnikh kontaktiv. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr. Archaeologia Bimaris 2*: 61-74. Poznań.

Gavryliuk N.A.

- 1987 Pryadanie u stepnykh skifov. In: *Skify Severnogo Prichernomoria, 116-130*. Kiev.

Gawlik A.

2005 Znaleźiska scytyjskie w zasięgu kultury Wysockiej. In: S. Czopek (Ed.) *Problemy kultury wysockiej*, 205-219. Rzeszów.

2007 Geneza zausznic gwoździowatych. In: J. Chochorowski (Ed.) *Studia nad epoką brązu i wczesna epoka żelaza w Europie. Księga poświęcona Profesorowi Markowi Gedlowi na pięćdziesięciolecie pracy w Uniwersytecie Jagiellońskim*, 219-240. Kraków.

Gawlik A., Przybyła M.S.

2005 Początki wczesnej epoki żelaza w Kotlinie Sandomierskiej. In: M. Kuraś (Ed.) *Archeologia Kotliny Sandomierskiej. Rocznik Muzeum Regionalnego w Stalowej Woli* 4: 313-352.

Gedl M.

2000 Miedziane topory ze schyłku III tysiąclecia przed Chrystusem z terenu Polski. *Rocznik Przemyski. Archeologia* 36 (2): 3-10.

2004 Uwagi na temat sytuacji kulturowej w młodszej epoce brązu i w początkach epoki żelaza na wschód od Bramy Przemyskiej. *Rocznik Przemyski. Archeologia* 40 (2): 81-88.

Gening V.F.

1979 The Cemetery at Sintashta and the Early Indo-Iranian Peoples. *JIES* 7: 1-30.

Gening V.F., Ždanovich G.B., Gening V.V.

1992 *Sintashta. Arkheologicheskie pamyatniki ariyiskich plemen Uralo-Kazachstanskich stepey*. Chelyabinsk.

Gerloff S.

1975 *The Early Bronze Age Daggers in Great Britain and a Reconsideration of the Wessex Culture*. Munich.

1993 Zu Fragen mittelmeerländischer Kontakte und absoluter Chronologie der Frühbronzezeit in Mittel- und Westeuropa. *PZ* 68: 58-102.

Gershoig Ju.G.

1940 Gidrotermalne zhyly Krivorozhskogo baseina. *Sovetskaya geologiya* 8: 6-12.

Gilewska S.

1991 Środowisko przyrodnicze Polski na tle Europy. In: L. Starkel (Ed.) *Geografia Polski. Środowisko przyrodnicze*, 13-22. Warszawa.

Gillis C., Olausson D., Vandkilde H.

2004 *Dawn of Europe*. Lund.

Gimbutas M.

1965 *Bronze Age Cultures in Central and Eastern Europe*. London.

1985 East Baltic Amber in the Fourth and Third Millennium BC. *JBS* 16 (3): 231-256.

- 1997a The Three Waves of Kurgan People into Old Europe, 4500–2500 B.C. In: M. Gimbutas, *The Kurgan Culture and the Indo-Europeanization of Europe*, ed. by M. Robbins Dexter and K. Jones-Bley, 240-266. Washington D.C.
- 1997b The Kurgan Wave 2. In: M. Gimbutas, *The Kurgan Culture and the Indo-Europeanization of Europe*, ed. by M. Robbins Dexter and K. Jones-Bley, 270-300. Washington D.C.
- Gloger Z.
1903 *Geografia historyczna ziem dawnej Polski*. Kraków.
- Gloger Z.
1978 *Encyklopedia staropolska*. T. I-IV. Warszawa.
- Głogowski Z., Ignaczak M.
2004 Osadnictwo społeczeństw kultury łużyckiej. In: J. Bednarczyk, A. Kośko (Eds) *Od długiego domu najstarszych rolników do dworu staropolskiego. Wyniki badań na trasie gazociągu Mogilno – Włocławek i KPMG Mogilno – Wydartowo*, 373-397. Poznań.
- Godlewski P.
2005 O nowych możliwościach datowania początków kultury wysockiej. In: S. Czopek (Ed.) *Problemy kultury wysockiej*, 33-44. Rzeszów.
- Godłowska M.
1984 Znaleźzisko amforki kultury strzyżowskiej z Krakowa – Nowej Huty na tle występujących tam śladów osadnictwa z przełomu neolitu i początków epoki brązu. *Sprawozdania Archeologiczne* 36: 39-47.
- Goetze A.
1953 An Old Babylonia Itinerary. *JCS* 7: 51-72.
- Gökçek L.G.
2006 The Use of Wagons (*eriqqum*) in Ancient Anatolia According to Texts from Kültepe. *ZA* 96 (5): 185-199.
- Goldmann K.
1981 Die mitteleuropäische Schwertentwicklung und die Chronologie der Altbronzezeit Europas. *Acta Praehistorica et Archaeologica* 11-12: 131-181.
- Gomilevskiy V.
1881 *Sol. Izsledovania russkogo bogatstva solu i upotrebleniya etogo veschestva: pri razlichnykh vidakh skotovodstva, zemledelii, v lesnom khoziaystve, v pishchu ludey i promyslennosti*. Sankt Petersburg.
- Gorbenko K.V.
2000 Kharakter i struktura arkhitekturnykh sooruzheniy poseleniya epoki finalnoy bronzы “Dikiy Sad”. In: *Arkheologiya i drevniaya arkhitektura Levoberezhnoy Ukrainy i smezhnykh territoriy*, 53-55. Donetsk.

- 2001 Ritualno-kultovye sooruzhenia poselenia "Dikiy Sad" v kontekste ento-kulturnykh svyazei naselenia Stepnogo Pobuzhia epokhi finalnoy bronzы. In: *Nauchnye trudy MGPU. Seria: sotsialno-istoricheskie nauki*, 338-343. Moskva.
- 2003 Materialna kultura zhyteliv ukriplenoho poselennya "Dyki Sad". *Naukovyi visnyk Mykolayivskoho derzhavnoho universytetu. Vypusk* 11, 38-45. Mykolayiv.
- 2004 Osnovni rezultaty pyatnadtsyatyrychnykh arkeologichnykh doslidzhen stepovoho horodyscha doby finalnoi bronzы "Dyki Sad". *Naukovi pratsi: Naukovo-metodychnyi zhurnal* 52 (39): 87-92. Mykolayiv.
- 2005 Issledovania ukreplennogo poselenia "Dikiy Sad" v 2006 g. In: *Arkheologichni oslidzhennya v Ukraini 2005-2007 rr.*, 9: 139-144. Kiev-Zaporizhya.
- 2006 Osnovni rezultaty pyatnadtsyatyrychnykh arkeologichnykh doslidzhen stepovoho horodyscha doby finalnoi bronzы "Dyki Sad". *Naukovi pratsi: Naukovo-metodychnyi zhurnal* 52 (39): 87-92. Mykolayiv.
- 2007 Horodyshe Dikiy Sad u XIII-IX st. do n.e. *Eminak* 1: 7-14. Mykolayiv.
- Gorbenko K.W., Grebennikov J.S.
2007 *Dikiy Sad. Arkheologicheskyy pamjatnik XIII-IX vv. do n.e. – rovesnik Troi!* Nikolaev.
- Gorbenko K.V., Grebennikov Y.S., Pankovskiy V.B.
2005 Rozkopy ukriplenoho poselennya "Dyki Sad" u 2004 r. In: *Arkheologichni doslidzhennya v Ukraini 2003-2004 rr.*, 100-104. Kiev – Zaporizhya.
- Goshko T.
1998 Tekhnologiya izgolovleniya bronzovykh izdeliy iz Gordievki. In: S.S. Berezanskaya, V.I. Kločko (Eds) *Das Gräberfeld von Hordeevka*, 49-76. Randen/Westfalen.
2005 Dva bronzovi virobi z fondiv Natsionalnogo Muzeyu Istroy Ukrainy. In: *Na poshanu Sofii Stanislavivni Berezanskoy*, 235-240. Kiev
- Górski J., Makarowicz P.
2007a Reception of Transcarpathian influence in Trzcinec cultural circle as a sign of long-distance exchange contacts. In: J. Baron, I. Lasak (Eds) *Long Distance Trade in the Bronze Age and Early Iron Age. Studia Archeologiczne* XL, 101-116. Wrocław.
2007b Interakcje kulturowe między zachodnim i południowo-wschodnim (pontyjskim) trzcienieckiego kręgu kulturowego. In: L. Bakalarska (Ed.) *Wspólnota dziedzictwa archeologicznego ziem Ukrainy i Polski. Materiały z konferencji zorganizowanej przez Ośrodek Ochrony Dziedzictwa Archeologicznego, Łańcut (26-28 X 2005)*, 148-170. Warszawa.
- Górski J., Makarowicz P., Wawrusiewicz A.
2010 *Osady i cmentarzyska trzcienieckiego kręgu kulturowego w Polesiu, pow. łowicki, woj. łódzkie, stan. 1.* Łódź. (in print).

Graham

- 1958 The date of the Greek penetration of the Black Sea. *Institute of Classical Studies* 5: 25-42.

Grakov B.N.

- 1947 Czy mała Olbia torgiwełni znosyny z Povolzhzhiam ta Pryuralliam v archaiychnu ta klasychnu epokhy? *Arkheologia* 1: 23-37.
1959 Greek Graffito from the Nemirovskoe City-Site. *SA* 1: 259-261.

Graves R.

- 1974 *Mity Greckie*. Warszawa.

Grebennikov Y.S.

- 1996 Connections of the steppe's southern Bug river region of the northern coasts of the Black Sea with the eastern Hallstatt region. In: P. Roman (Ed.) *The Thracian world at the crossroads of civilizations*: 393-394. Bucharest.
2008 *Kimmeriyaci i skify Stepnego Pobuzhia (IX-III w. do n.e.)* Nikolaev.

Grimal N.

- 2005 *Dzieje starożytnego Egiptu*. Warszawa.

Grimal P.

- 1987 *Słownik mitologii greckiej i rzymskiej*. Wrocław.

Grygiel R.

- 1995 Sytuacja kulturowa w późnym okresie halsztackim i wczesnym lateńskim w rejonie Brześcia Kujawskiego. In: T. Węgrzynowicz, M. Andrzejowska, J. Andrzejowski, E. Radziszewska (Eds), *Kultura pomorska i kultura grobów kloszowych. Razem czy osobno?*, 319-359. Warszawa.

Gumiński W.

- 1989 *Gródek Nadbużny. Osada kultury pucharów lejkowatych*. Wrocław – Warszawa – Kraków – Gdańsk – Łódź.

Gurina N.N.

- 1961 *Drevnyaya istoriya severo-zapada evropeyskoy chasti SSSR*. Moskwa – Leningrad.
1973 K voprosu ob obmene v neolitsicheskuyu epokhu. *KSI* 138: 12-23.

Hachmann R.

- 1957 *Die frühe Bronzezeit im westlichen Ostseegebiet und ihre mittel- und südost-europäischen Beziehungen*. Hamburg.

Halikov A.H.

- 1974 Balanovskie pamjatniki v Tatarii. *KSI* 97: 50-58.

Hallo W.W.

- 1964 The Road to Emar. *JCS* 18: 57-88.

- Hammer S.
2005 *Dzieje*, przekład i opracowanie z greckiego. Warszawa.
- Hammond N.G.L.
1972 *A History of Macedonia*. Oxford.
- Harding, A.F.
1975 Mycenaean Greece and Europe: the evidence of bronze tools and implements. *PPS* 41: 183-202.
1984 *Myceneans and Europe*. London – Nowy Jork.
2000 *European Societies in the Bronze Age*. Cambridge.
2005 Horse-harness and the origins of the Mycenaean civilisation. In A. Dakouri-Hild, S. Sherratt (eds) *Autochthon. Papers presented to O.T.P.K. Dickinson on the occasion of his retirement*, 296-300. Oxford.
- Harding A.F., Hughes-Brock H.
1974 Amber in the Mycenaean World. *BSA* 69: 145-172.
- Hayen H.
1957 Zur Bautechnik und Typologie der vorgeschichtlichen, frühgeschichtlichen und mittelalterlichen Moorwege und Moorstrassen. *Oldenburger Jahrbuch* 56 (2): 83-170.
- Hein M.
1990 *Untersuchungen zur kultur der Schnurkeramik in Mitteldeutschland. Katalog und Dokumentation*. Bonn.
- Herrmann J.
1986 *Welt der Slaven. Geschichte, Gesellschaft, Kultur*. Leipzig – Jena – Berlin.
- Herodot
1959 *Dzieje*. Warszawa.
2005 *Dzieje*, z greckiego przełożył i opracował S. Hammer. Warszawa.
- Heyko A.V., Artemiev A.V., Sapiegin S.V.
1999 Katakombne pokhovannya z Poltavshchyny. In: *Materialy mizhnarodnoi konferentsii "Etnichna istoria ta kultura naselennya stepu ta lisostepu Yevrazii (vid kamyanooho viku po rannye serednyovichya)"*, 76-78. Dnipropetrovsk.
- Hiller S.
1991 The Mycenaean and the Black Sea. In: R. Laffineur, L. Basch (Eds) *Thalassa: L'Égée Préhistorique et la Mer. Aegeaum 7*: 207-216. Liège.
- Hind J.
2002 Herodotus on the Black Sea Coastline and Greek Settlements: Some Modern Misconceptions. In: G.R. Tsetschladze, A.M. Snodgrass (Eds) *The Greek Settlement in the Eastern Mediterranean and the Black Sea. BAR IS 1062*: 41-47.

Hochstetter A.

- 1982 Spätbronzezeitliches und früheisenzeitliches Formengut in Makedonien und im Balkanraum. In: B. Hänsel (Ed.) *Südosteuropa zwischen 1600–1000 v. Chr. Prähistorische Archäologie in Südosteuropa*, 99-118. Berlin.

Hoffner A.H.,

- 1997 Hittite. In: E.M. Meyers (Ed.) *The Oxford Encyclopedia of the Archaeology in the Near East*. Vol. 3, 81-84. Oxford.

Hofmann, U.

- 2004 Kulturgeschichte des Fahrens im Ägypten des Neuen Reiches. In: M. Fansa, S. Burmaister (Eds) *Rad und Wagen. Der Ursprung einer Innovation Wagen im Vorderen Orient und Europa*, 143-156. Mainz am Rhein.

Homer

- 1999 *Iliada*, w przekładzie K. Jeżewskiej. Warszawa.
2002 *Iliada*, w przekładzie F.K. Dmochowskiego. Kraków.

Hood S., Huxley G., Sanders N.

- 1959 A Minoan Cemetery on Upper Gypsades. *BSA* 53-54: 194-262.

Hozer M.

- 2005 Stan badań nad kulturą wysocką. In: S. Czopek (Ed.) *Problemy kultury wysockiej*, 221-250. Rzeszów.

Huxley G.

- 1996 Language and migration: Greek, Indo-Iranian, and the rise of Mycenae. *BICS* 41: 146.

Hänsel B.

- 1968 *Beiträge zur Chronologie der mittleren Bronzezeit im Karpatenbecken*. Bonn.
1982 Südosteuropa zwischen 1600 und 1000 v. Chr. In B. Hänsel (Ed.) *Südosteuropa zwischen 1600–1000 v. Chr. Prähistorische Archäologie in Südosteuropa*, 1-38. Berlin.
1995 (Ed.) *Tausch und Verkehr im bronze- und früheisenzeitlichen Südosteuropa*. München – Berlin.

Hänsel B., Terzan B.

- 2000 Ein bronzezeitliches Kuppelgrab in Norden der Adria. *PZ* 75: 62-183.

Häusler A.

- 1998 Tumuli, Schachtgräber und der Ursprung der Griechen. In: B. Fritsch, M. Moute, J. Matuschik, J. Müller, C. Wolf (Eds) *Tradition und Innovation. Prähistorische Archäologie als historische Wissenschaft*, 275-289. Rahden.

Höckmann O.

- 1980 Lanze und Speer im spätminoischen und mykenischen Griechenland. *JRGZ* 27: 13-158.

Hüttel H.

- 1977 Altbronzezeitliche Pferdetrensen. *Jahresbericht des Instituts für Vorgeschichte der Universität Frankfurt am Main*, 75-86.
- 1982 Zur Abkunft des danubischen Pferd-Wagen-Komplexes der Altbronzezeit. In: B. Hänsel (Ed.) *Südosteuropa zwischen 1600–1000 v. Chr. Prähistorische Archäologie in Südosteuropa*, 39-63. Berlin.

Ignaczak M.

- 2007 Osadnictwo społeczności kultury łużyckiej. In: L. Czerniak (Ed.) *Od Paleolitu do nowożytności. Archeologiczne badania ratownicze na trasie budowy obwodnicy Wyszkowa. Gdańskie Studia Archeologiczne* 1: 91-110.
- 2008 Wzorce kulturowe lasu/lasostepu strefy Pontyjskiej w niżowych zespołach kręgu łużyckiego. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 141-165. Poznań.

Ignaczak M., Affelski J.

- 2009 Osadnictwo społeczności kultury łużyckiej na stanowisku 8 w Głazowie gm. Myślibórz (in print).

Ignaczak M., Ślusarska-Michalik

- 2003 The radiocarbon chronology of the Urnfield Complex and the dating of cultural phenomena in the Pontic Area (Late Bronze Age and Early Iron Age), *BPS* 12: 382-395.

Ilyinskaya V.A.

- 1968 *Skify Dneprovskogo Lesostepnogo Levoberezhia*. Kiev.
- 1975 *Ranneskifskie kurgany basseina r. Tyasmyn*. Kiev.

Ilyinskaya V.A., Mozolevsky B.N., Terenozhkin A.I.

- 1979 Kurgany VI v. do n.e. u s. Matusova. In: *Skifia i Kavkaz*, 34-43. Kiev.

Ilyinskaya V.A., Terenozhkin A.I.

- 1983 *Skifia VII–IV w do n.e.* Kiev.

Irwin-Williams C.

- 1977 A Network Model for the Analysis of Prehistoric Trade. In: T.K. Earle, J.E. Ericson (Eds) *Exchange Systems in Prehistory*, 141-151. New York – San Francisco – London.

Isaenko V.F.

- 1976 *Neolit Pripjatskogo Polesya*. Minsk.

Ivanova S.V.

- 2001 *Sotsialnaya struktura naselenia yamnoi kultury Severo-Zapadnogo Prichernomorya*. Odessa.

Jakimowicz R.

- 1924 Zabytki przedhistoryczne z obszaru Rzeczypospolitej Polskiej w zbiorach rosyjskich. *WA* 9/1-2: 113-119.

Jansen H.G.

- 1995 Troy: Legend and Reality. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 1121-1133. London – New York.

Jarosz P., Włodarczyk P.

- 2007 Chronologia bezwzględna kultury ceramiki sznurowej w Polsce południowo-wschodniej i na Ukrainie. *Przegląd Archeologiczny* 55, s. 71-108.

Jastrzębski S.

- 1983 Gródek stan. 1C, gm. Hrubieszow, woj. Zamojskie. *Sprawozdania z badań terenowych Katedry Archeologii UMCS i Archeologicznego Ośrodka Badawczo-Konserwatorskiego w Lublinie w 1983 roku*, 8-11. Lublin.
- 1989 *Kultura Cucuteni-Trypole i jej osadnictwo na Wyżynie Wołyńskiej*. Lublin.

Jażdżewski K.

- 1936 *Kultura pucharów lejkowatych w Polsce zachodniej i środkowej*. Poznań.
- 1981 Pradzieje Europy Środkowej. Wrocław.

Jersak J., Sendobry K., Śnieszko Z.

- 1992 *Postwarciańska ewolucja wyżyn lessowych w Polsce*. Katowice.

Jessen A.A.

- 1940 Mozdokskiy mogilnik v ryadu pamyatnikov Severnogo Kavkaza. In: *Arkheologicheskie ekspeditsii Ermitazha I*. Leningrad.

Jones-Bley K.

- 2000 The Shistashta “Chariots”. In: J. Davis-Kimball, E.M. Murphy, L. Koryakova, L.T. Yablonsky (Eds), Kurgans, ritual sites, and Settlements Eurasian Bronze and Iron Age, *BAR IS* 890, 126-133. Oxford.

Kadrow S.

- 1991 *Iwanowice stanowisko Babia Góra, Cz. I. Rozwój przestrzenny osady z wczesnego okresu epoki brązu*. Kraków.
- 1995a Absolute Chronology of the Sofievka Type in the Light of “Wiggle Matching” Analysis, In: A. Koško (Ed.) *Cemeteries of the Sofievka type 2950-2750 BC*. *BPS* 3: 141-147.
- 1995b *Gospodarka i społeczeństwo. Wczesny okres epoki brązu w Małopolsce*. Kraków.
- 2001 *U progu nowej epoki. Gospodarka i społeczeństwo wczesnego okresu epoki brązu w Europie Środkowej*. Kraków.
- 2005 Związki kultury trypolskiej z kulturami Środkowej i Południowej Europy – wybrane zagadnienia. In: *Kultura trypolska. Wybrane problemy*, 7-31. Stalowa Wola.

- 2007 North of the Carpathians – the Outskirts of the Aegean World? In: I. Galanaki, H. Tomas, Y. Galanakis, R. Laffineur (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders. Aegaeum 27*: 323-329. Liège.
- Kadrow S., Koško A., Videiko M.
 1995 Pottery Stylistics of the Sofievka Type, Genetic-Cultural Qualification. In: A. Koško (Ed.) *Cemeteries of the Sofievka Type: 2950-2750 BC. BPS 3*: 200-213.
- Kadrow S., Machnik, J.
 1997 *Kultura mierzanowicka. Chronologia, taksonomia i rozwój przestrzenny*. Kraków.
- Kadrow S., Zakościelna A.
 2000 An outline of the evolution of Danubian cultures In Małopolska and Western Ukraine. In: A. Koško (Ed.) *The western border area of the Tripolye culture. BPS 9*: 187-255.
- Kamieńska J., Kozłowski J.K.
 1990 *Entwicklung und Gliederung der Lengyel- und Polar-Kulturgruppen in Polen*. Warszawa – Kraków.
- Kaiser E.
 1997 *Der Hord von Borodino. Kritische Anmerkungen zu einem berühmten bronzezeitlichen Schatzfunde aus dem nordwestlichen Schwarzmeergebiet*. Bonn.
 2003 *Studien zur Katakombengrabkultur zwischen Dnepr und Prut. Archäologie in Eurasien*, Bd. 14. Mainz.
- Kantor R.
 1983 *Ubiór, strój-kostium, funkcje odzienia w tradycyjnej społeczności wiejskiej w XIX w i na początku XX w. na obszarze Polski*. Kraków.
- Kapełuś M., Kropiwnicka M. (Eds)
 2003 *Eposy Sumeryjskie*. Warszawa.
- Kaposhina S.
 1956 *O Skifskikh elementakh v kulture Olbii. Materialy i issledovania po arkheologii SSSR 50*: 155-189.
- Kapuściński R.
 2004 *Podróże z Herodotem*. Warszawa.
- Kardulias P.N.
 1999 (Ed.) *World-Systems Theory in Practice. Leadership, Production, and Exchange*. Lanham – Boulder – New York – Oxford.
- Karo G.
 1930a *Die Schachtgräber von Mykenae*. München.
 1930b *Schatz von Tiryns, Mitteilungen des Deutsches Archäologisches Institut in Athen*, Bd. 60: 119-140.

Karwicka

- 1995 Ubiór ludowy w Polsce. In: A. Kowalska-Lewicka (Ed.) Biblioteka Popularnonaukowa, t. XII. Wrocław.

Kashuba M.T., Kurchatov S.I., Shcherbakova T.A.

- 2002 Kochevniky na zapadnoy granitse stepi (po materialam kurganov u s. Mokra). *Stratum plus 4 (2001-2002)*, 180-252.

Kasiński J.R., Tołkanowicz E.

- 1999 Amber In the Northern Lublin Region – Origin and Occurrence. In: B. Kosmowska-Ceranowicz, H. Paner (Eds) *Investigations into Amber*, 41-52. Gdańsk.

Katinas V.

- 1971 *Amber and Amber-Bearing Deposits of Southern Baltic Land* [in Russian]. Vilnius.

Kelly-Buccellati M.

- 1990 Trade in Metals in the Third Millennium Northeastern Syria and Eastern Anatolia. In: P. Matthiae, M. van Loon, H. Weiss (Eds) *Resurrecting the Past. A Joint Tribute to Adnan Bounni*, 117-131. Istanbul.

Kempisty A.

- 1978 *Schylek neolitu i początek epoki brązu na Wyżynie Małopolskiej w świetle badań nad kopcami*. Warszawa.

Kilian L.

- 1955 *Haffküstenkultur und Ursprung der Balten*. Bonn.

Kilian-Dirlmeier I.

- 1997 *Das mittelbronzezeitliche Schachtgrab von Ägina. Alt-Ägina*. Mainz.

King Ch.

- 2006 *Dzieje Morza Czarnego*. Warszawa.

Kirjanova N.A.

- 1973 Naumovskiy fatyanovskiy mogilnik. *KSI&A* 134: 72-76.

Kirkowski R.

- 1984 Z badań nad recepcją tradycji kulturowych strefy nadczarnomorskiej wśród społeczeństw Niżu Polski u schyłku III tysiąclecia p.n.e. *Archeologia Polski* 29 (1): 57-67.

Klengel H.

- 1977 Nomaden und Handel. *Iraq* 39: 163-170.
1979 *Handel und Händler im alten Orient*. Leipzig.

Klochko L.S.

- 2008 Kostyumu plemen Skifii v konteksti zvyazkiv iz naseleennyam Yevropy. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofia-*

rowane profesorowi Aleksandrowi Koško w 60. rocznice urodzin, 217-238. Poznań.

Klochko, V.I. (Kločko V.I.)

- 1990 “Narody Morya” ta Pivnichne Pricheronmorya. *Arkheologia* 1: 10-14.
- 1991 Weapons of the Tribes of the Northern Pontic Zone in the 16th-10th Centuries BC. *BPS* 1.
- 1993 Weapons of the Tribes of the Sabatinovka Culture. *Culture et Civilisation au Bas Danube* 10: 43-55.
- 1994a Metallurgicheskoe proizvodstvo v eneolitse-bronzovom veke. In: *Remeslo epokhi eneolita-bronzy na Ukraine*. 96-130. Kiev.
- 1994b The Weaponry of the Pastoral Societies in the Context of the Weaponry of the Steppe-Forest-Steppe Communities: 5000-2350 BC. In: A. Koško (Ed.) *Nomadism and Pastoralism in the Circle of Baltic-Pontic Early Agrarian Cultures: 5000–1650 BC*. *BPS* 2: 167-195.
- 1996 Novye aspekty svyazey Severnogo Prichernomorya s Vostochnym Sredizemnomoryem v pozdnem bronzovom veke. In: *Mir Olbii. Materialy yubileynykh chteniy, posvyashchennykh 90-letiyu so dnya rozhdeniya L.M. Slavina*, 129-131. Kiev.
- 1998 Die Süd- und Westbeziehungen der Ukraine rechts des Dniepr im 2 und frühen 1 Jahrtausend v. Chr. In: B. Hänsel, J. Machnik (Eds) *Das Karpatenbecken und die Osteuropäische steppe*, 343-352. *Prähistorische Archäologie in Südosteuropa* 12. München.
- 2001a Weaponry of Societies of the Northern Pontic Cultures Circles: 5000–700 BC. *BPS* 10.
- 2001b Razvitok ozbroennya “shnurovikh” kultur Ukrayini, yak vidobrazhennya etno-kulturnikh protsesiv v regioni. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.* *Archaeologia Bimaris* 2: 241-258. Poznań.
- 2002 Mace of the Neolithic-Bronze Age of the Northern Pontic Region. In: A. Koško (Ed.) *Fluted Maces in the System of the Long-Distance Exchange Trails of the Bronze Age: 2350-800 BC*. *BPS* 11: 22-30.
- 2004 Metalurgiya Trypolya (dosyagnennya ta perspektyvy vyvchennya). In: *Entsyklopediya trypilskoyi tsyvilizatsiyi* I: 219-222. Kiev.
- 2006 *Ozbroennya ta viyskova sprava davnego naseleennya Ukrayini (5000-900 rr. do R.Kh.)*. Kiev.
- 2007 Torhovelni shlyakh Bug-Bog za chasiv doby serednoyi bronzy ta indoeuropeizatsia maloi Azii. In: L. Bakalarska (Ed.) *Wspólnota dziedzictwa archeologicznego ziem Ukrainy i Polski. Materiały z konferencji zorganizowanej przez Ośrodek Ochrony Dziedzictwa Archeologicznego, Łańcut, 26-28.X.2005r.*, 171-178. Warszawa.

- 2008 Torhovelnyi shlyakh Bug-Bog. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 239-249. Poznań.
- Klochko V.I., Koško A., Szmyt M.
- 1999 A Comparative Chronology of the Prehistory of the Area between the Vistula nad Dnieper: 3150–1850 BC. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 3150–1850 BC. BPS 7*: 264-282.
- 2003 A Comparative Chronology of the Prehistory of the Area between the Vistula and Dnieper: 4000–1000 BC. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper. BPS 12*: 396-414.
- Klochko V., Kovalyukh N., Skripkin V., Motzenbecker I.
- 1998 The chronology of the Subotiv settlement. *Radiocarbon 40* (2): 667-673.
- Klochko V.I., Manichev V.I., Kvasnitsa V.I., Kozak S.A., Demchenko L.V., Sokhat'skiy M.P.
- 2000 Issues Concerning Tripolye Metallurgy and the Virgin Copper of Volhynia. In: A. Koško (Ed.) *The Western Border Area of the Tripolye Culture. BPS 9*: 168-186.
- Klochko V.I., Manichev V.I., Kompanec G.S., Kovalchuk M.S.
- 2003 Wychodnie rudy miedzi na terenie Ukrainy zachodniej jako baza surowcowa metalurgii kolorowej w okresie funkcjonowania kultury trypolskiej. *Folia Praehistoric Posnaniensia 10/11*: 47-77.
- Klochko V.I., Rychkov M.O.,
- 1989 Novi pokhovannya katakombnoi kultury v Seredniomy Podniproviy. *Archeologia 3*: 60-65.
- Klochko V.I., Stolpiak B.
- 1995 Glass beads from Sofievka Cemetery. In: A. Koško (Ed.) *Cemeteries of the Sofievka type: 2950–2750 BC. BPS 3*: 243-246.
- Kłosińska E.
- 2005 Na południowo-wschodnich peryferiach popielnicowego świata – sytuacja kulturowa i osadnicza w młodszej epoce brązu i we wczesnej epoce żelaza w dorzeczu Huczwy i Bugu. In: S. Czopek (Ed) *Problemy kultury wysockiej*, 161-192. Rzeszów.
- 2007a Lubelszczyzna i Ukraina w młodszych odcinkach epoki brązu i we wczesnej epoce żelaza – pytania o losy wspólne i niewspólne. In: L. Bakalarska (Ed.) *Wspólnota dziedzictwa archeologicznego ziem Ukrainy i Polski. Materiały z konferencji zorganizowanej przez Ośrodek Ochrony Dziedzictwa Archeologicznego, Łańcut (26-28 X 2005 r.)*, 226-249. Warszawa.

- 2007b Issues of the east- and central- European contacts of the Lublin region in the younger Bronze Age and the early Iron Age in the light of existing research and sources. In: J. Baron, I. Lasak (Ed.) *Long Distance Trade in the Bronze Age and Early Iron Age. Conference Materials, Wrocław, 19-20th April 2005*, 271-292. Wrocław.
- 2009 O kilku przedmiotach brązowych odkrytych na Roztoczu Środkowym. In: S. Czopek, K. Trybała-Zawiślak (Eds.) *Tarnobrzaska kultura łużycka – źródła i interpretacje*. Rzeszów (in print).
- Knappet C., Kilikoglou V., Stelle V., Stern B.
2005 The circulation of Red Lustrous Wheelmade ware: petrographic, chemical and residue analysis. *AS* 55: 25-59.
- Kobal J.
1993 Bronzovyy skarb iz s. Zavadka Volovetskoho r-nu Zakarpatskoyi obl. Do porblemy starodavnikh shlyakhiv spoluchen cherez girski perevaly Ukrainy Karpat. In: *Pamyatky galshtatskoho periodu mezhyrichchya Visly, Dnistra i Prypiati*, 122-129. Kiev.
- Kokowski A.
2005 *Starożytna Polska*. Warszawa.
- Kolendo J.
1987 Rejon ujścia Wisły w oczach starożytnych. In: *Badania archeologiczne w woj. elbląskim w latach 1980–1983. Muzeum Zamkowe w Malborku*, 193-206. Malbork.
- Kolev V.
1986 The Greek Colonization and the Ionian Geographical Tradition about Scythia. In: *Thracia Pontica III*: 311-319. Sofia.
- Koliński R.
2007a Koniec III tysiąclecia w Południowej i Centralnej Turcji. In: D. Szelağ (Ed.) *Historia i kultura państwa III dynastii z Ur*, 109-116. Warszawa.
2007b The Upper Khabur region in the Second Part of the Third Millennium BC. *AoF* 34 (2): 342-369.
- Koltukhov S.G., Kyslyi A.E., Torshev G.N.
1994 *Kurganye drevnosti Kryma*. 1. Zaporozhie.
- Kondracki J.
1969 *Podstawy regionalizacji fizyczno-geograficznej*. Warszawa.
1988 *Geografia fizyczna Polski*. Warszawa.
1998 *Geografia regionalna Polski*. Warszawa.
2000 *Geografia regionalna Polski*. Warszawa.
- Kondracki J., Rychling A.
1998 Regiony fizycznogeograficzne. In: J. Kondracki (Ed.) *Geografia regionalna Polski*, (mapa), Warszawa.

Konstantinidi-Sybridi E.

2002/03 Σφάλιρικς Κοκκιδωτς Χυτρες της Μυκηνακς, Εποχς ρουτα Κρητικο Εργαστηρου. τ Μουσειου 3: 90-91.

Kopczyńska-Jaworska B.

1960 Z wędrówek po szafasach rumuńskich. Wierchy 19.

van Koppen F., Greenwood K., Morgan C., Strawn B.A., Cooley J., Arnold B.T., von Dassow E., Cohen Y.,

2006 Late Bronze Age Inscriptions from Babylon, Assyria, and Syro-Palestine. In: M.W. Chavalas (Ed.) *The Ancient Near East. Historical Sources in Translation*, 134-181. Singapore.

Korenevskiy S.N.

1976 O metallicheskih toporakh Severnogo Prichernomorya, Srednego i Nizhnego Povolzhya epokhi sredney bronzy. *SA* 4: 16-31.

2004 *Drevnejshie zemledelcy i skotovody Predkavkazya. Maykopsko-novosvobodnenskaya obshchnost. Problemy vnutrennej tipologii*. Moskva.

Kornaś J., Medwecka-Kornaś A.

2002 *Geografia roślin*. Warszawa.

Koromila M.

2002 *The Greeks and the Black Sea from the Bronze Age to the Early 20th Century*. Athens.

Korsak J.

1990 Neolityczne siekierki kamienne w zbiorach Muzeum Okręgowego w Ostrołęce. *WA* 50/2 (1985): 155-156.

Kosakivsky V.A.

1998 Skifskiy kyndzhak z s.Vakhnivka. In: *Naukovyy zbirnyk Podilska starovyna*, 41-43. Vinnytsia.

Kosmowska-Ceranowicz B.

1983 Bursztyn w osadach. In: B. Kosmowska-Ceranowicz, R. Kulicka, K. Leciejewicz, P. Mierzejewski, T. Pietrzak (Eds) *Bursztyn w przyrodzie*, 39-48. Warszawa.

2005 Złoża bursztynu: geologia, zasoby i współczesne metody wydobycia. In: B. Kosmowska-Ceranowicz, W. Gierłowski (Eds) *Bursztyn. Poglądy, opinie*, 9-13. Gdańsk.

Kostrowicki A.S.

1999 *Geografia biosfery*. Warszawa.

Kośko A.

1979 Rozwój kulturowy społeczeństw Kujaw w okresie schyłkowego neolitu i wczesnej epoki brązu. Poznań.

- 1981 *Udział południowo-wschodnioeuropejskich wzorców kulturowych w rozwoju niżowych społeczeństw kultury pucharów lejkowatych*. Poznań.
- 1985 Influences of the “pre-yamnaya” (“pre-pitgrave”) Communities from Black Sea Steppe Area in Western European Cultures. In: J.K. Kozłowski, J. Machnik (Eds) *L'eneolithique et le debut de l'age du bronze dans certaines regions de l'Europe*, 57-72. Wrocław – Warszawa – Kraków – Gdańsk – Łódź.
- 1988a *Osady kultury pucharów lejkowatych w Inowrocławiu-Mątwach woj. Bydgoszcz, stanowisko 1*. Inowrocław.
- 1988b Rozwój kulturowy społeczeństw Kujaw w okresach późnego neolitu oraz interstadium epok neolitu i brązu w aspekcie recepcji egzogennych wzorców kulturowych. In: A. Cofta-Broniewska (Ed.) *Kontakty pradziejowych społeczeństw Kujaw z innymi ludami Europy*, 145-183. Inowrocław.
- 1990 The Migration of Steppe and Forest-steppe Communities into Central Europe. *JIES* 18 (3/4): 309-329.
- 1991a The Vistula – Oder Basins and the North Potnic Region. *JIES* 19: 235-257.
- 1991b Ze studiów nad kujawską enklawą naddunajskiej cywilizacji wczesnobrązowej. Poznań – Inowrocław.
- 1992 Z badań nad tzw. horyzontem starsznurowym w rozwoju późnoneolitycznej kultury społeczeństw Kujaw. *Acta Universitatis Lodziensis. Folia Archaeologica* 16: 85-95.
- 1994 Perspektywa “wschodu” w rozwoju osadniczo-kulturowym bałkańsko-środkoeuropejskiego kręgu społeczeństw wczesnoagrarnych. In: L. Czerniak (Ed.) *Neolit i początki epoki brązu na ziemi chełmińskiej*, 189-197. Grudziądz.
- 1999 (Ed.) The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 3150-1850 BC. *BPS* 7. Poznań.
- 2000 (Ed.) *The Western Border Area of the Tripolye Culture*. *BPS* 9. Poznań.
- 2001 Zagadnienie wczesnobrązowej cezury w rozwoju “szlaku” Krym – Jutlandia. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.*, *Archaeologia Bimaris* 2: 283-289. Poznań.
- 2002 Fluted Maces in Cultural System of the Borderland of Eastern and Western Europe: 2350–800 BC. In: A. Koško (Ed.) *Fluted Maces in the System of Long Distance Exchange Trails of the Bronze Age: 2350–800 BC*. *BPS* 11: 31-81.
- 2003a Radiocarbon Chronology of the Mątwy Group of the Funnel Beaker Culture. The Question of Chronological and Cultural Position of Linear-Comb Pottery. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper*. *BPS* 12: 67-81.

- 2003b (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 4000–1000 BC*. BPS 12. Poznań.
- Kośko A., Czebreszuk J. (Eds)
1998 *Trzciniec: system kulturowy czy interkulturowy proces?* Poznań.
- Kośko A., Klochko V.I. (Kośko A., Kločko V.I.)
1991 Bożejewice, gm. Strzelno, woj. Bydgoszcz, stanowisko 8. Kurhan z późnego okresu epoki neolitu. *Folia Praehistorica Posnaniensia* IV: 119-144.
1994 Nomadism and pastoralism – an outline programme for a discussion. In: A. Kośko (Ed.) *Nomadism and pastoralism in the circle of Baltic-Pontic early agrarian cultures: 5000–1650 BC*. BPS 2: 1-4.
- Kośko A., Langer J.J., Szmyt M.
2000 Painted Pottery as a Symptom of Tripolye “Influence” in the circle of Neolithic Vistula Cultures. In: A. Kośko (Ed.) *The Western Border Area of the Tripolye Culture*. BPS 9: 282-288.
- Kośko A., Przybył A.
2004 Kultura pucharów lejkowatych. In: J. Bednarczyk, A. Kośko (Eds) *Od długiego domu najstarszych rolników do dworu staropolskiego. Wyniki badań archeologicznych na trasach gazociągów Mogilno – Włocławek i Mogilno – Wydartowo*, 235-314. Poznań.
- Kośko A., Szmyt M.
2004a *Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru*. Poznań.
2004b Hodowla w systemach gospodarki na Niżu: IV-III tys. przed Chr. (kultury pucharów lejkowatych i amfor kulistych. In: A. Kośko, M. Szmyt (Eds) *Nomadyzm a pastoralizm w Międzyrzeczu Wisły i Dniepru (neolit, eneolit, epoka brązu)*. *Archaeologia Bimaris* 3: 103- 116. Poznań.
2004c Problem wschodniej rubieży kultur neolitycznych Niżu Środkowoeuropejskiego: VI–III tys. BC. In: *Wspólnota dziedzictwa kulturowego ziem Białorusi i Polski*, 80-98. Warszawa.
2006 *Opatowice – Wzgórze Prokopiaka I*. Studia i materiały do badań nad późnym neolitem Wysoczyzny Kujawskiej I. Poznań.
2007 Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru w IV–III tys. p. Chr. *Archaeologia Bimaris* 3: 35-42.
- Kotova N.S.
2000 Keramika poseleniya Dereivka i rol kultury voronkovidnykh kubkov v yeyo slozhenii. In: *Etnotekurni kontakti dobi eneolitu – rannobronzovogo viku v Tsentralniy Evropi*. Kiev – Moskva.
2002 *Neolitizatsiya Ukrainy*. Luhansk.
- Kotova N.S., Spitsyna L.A.
2003 Radiocarbon Chronology of the “Middle” Layer of the Mikhailivka Settlement. In: A. Kośko (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula nad Dnieper*. BPS 12: 121-131.

Kovaleva I.F.

1983 *Pogrebalnyi obryad i ideologia rannikh skotovodov*. Dnipropetrovsk.

1984 *Sever stepnogo Podneprovya v eneolite – bronzovom veke*. Dnipropetrovsk.

Kovaleva I.F., Marina Z.P., Romashko V.A., Teslenko D.L., Shalobudov V.N., Veklenko V.A.

2003 *Kurgany eneolita – bronzy v krivorozhskom techenii Inhultsa*. Dnipropetrovsk.

Kovalyukh N., Videiko M.Y., Skripkin V.

1995 Chronology of Sofievka Type Cemeteries: Archaeological and Isotopic One. In: A. Koško (Ed.) *Cemeteries of the Sofievka type 2950–2750 BC*. *BPS* 3: 135-140.

Kovpanenko G.T.

1981 *Kurgany ranneskijskogo vremeni v basseine r. Ros*. Kiev.

Kovalchuk M.

2003 Istorychni ta geologichni peredumovy poshuku rudoproiaviv zolota v osadovykh tovschakh. In: *Geolog Ukrainy*, 76-84. Kiev.

Kowalski K., Pucek Z.

1984 Rodzina: Wiewiórkowate – Sciuridae. In: Z. Pucek (Ed.) *Klucz do oznaczania ssaków Polski*, 151-160. Warszawa.

Kozłowski J.K.

1985 The Eastern Areas of the Linear Band Pottery Culture. In: A. Kokowski (Ed.) *Memoires Archeologiques*, 51-70. Lublin.

Kozłowski L.

1924 *Młodsza epoka kamienia w Polsce (neolit)*. Lwów.

1939 Prahistoria Polski Południowo-Wschodniej. In: Z. Czerny (Ed.) *Polska Południowo-Wschodnia*, T. 1, 64-164. Lwów.

Kozłowski S.K.

1985 Pontic Elements in the Mesolithic of South-Eastern Poland. In: A. Kokowski (Ed.) *Memoires Archeologiques*, 19-26. Lublin.

Kramer S.N.

1977 Commerce and Trade: Gleanings from Sumerian Litterature. *Iraq* 39: 59-68.

Kranc M.

2003 Analiza ceramiki z cmentarzyska Gordijewka, raj. Trostianec, obv., Winnica (Ukraina). Problem identyfikacji topogenetycznej. Poznań (MA thesis).

Kraynov D.A.

1963 *Pamyatniki fatyanovskoy kultury. Moskovskaya grupa*. Moskva.

1964a *Pamyatniki fatyanovskoy kultury. Jaroslavsko-kalininskaya grupa*. Moskva.

1964b Volosovo-danilovskiy mogilnik fatyanovskoy kultury. *SA* 4: 68-83.

- 1972 *Drevneyshaya istoriya Volgo-Okskogo mezhdurechya (Fatjanovskaya kultura. II tysiacheletie do n.e.)*. Moskva.
- 1987 Fatjanovskaya kultura. In: O.N. Bader, D.A. Kraynov, M.F. Kosarev (Eds) Epoha brony lesnoj polosy SSSR. *Arkheologia SSSR* 7, 58-76. Moskva.
- 1992 On the problem of origin, chronology and periodization of the Fatyanovo-Balanovo cultural community. In: M. Buchvaldek, Ch. Strahm (Eds) Die kontinentaleuropäischen Gruppen der Kultur mit Schnurkeramik. Schnurkeramik-Symposium 1990. *Præhistorica* 19: 321-371.
- Kraynov D.A., Gadzjackaja O.S.
1987 *Fatjanovskaya kultura. Jaroslavskoe Povolzhe*. Moskva.
- Krapiec M.
2009 Wyniki analizy dendrochronologicznej drewna z Żuławki Małej In: J. Rola (Ed.) *Późnoneolityczny węzeł komunikacyjny w strefie środkowej Noteci (Żuławka Mała, gmina Wyrzysk)*, 116-119. Poznań.
- Kristiansen K.
1987 From stone to bronze: the evolution of social complexity in Northern Europe 2300–1200 BC. In: E.M. Brumfiel, T. Earle (Eds) *Specialization, exchange, and complex societies*, 30-52. Cambridge.
1998 *Europe before history*. Cambridge.
- Kristiansen K., Larsson T.
2005 *The Rise of Bronze Age Society. Travels, Transmissions and Transformations*. Cambridge.
2007 Contacts and travels during the 2nd millennium BC. Warriors in move? In: Galanaki J, Tomas H., Galanakis Y, Laffineur R. (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders, Aegeum* 27: 25-32. Liège.
- Krivcova-Grakova O.A.
1947 Chronologiya pamyatnikov fatyanovskoy kultury. *KSLA* 16: 22-33.
- Kruk J.
1980 *Gospodarka w Polsce południowo-wschodniej w V-III tysiącleciu p.n.e.* Wrocław.
2004 Przemiany gospodarcze i społeczne na początku młodszego neolitu w dorzeczu górnej Wisły. In: A. Kośko, M. Szmyt (Eds) Nomadyzm a pastoralizm w Międzyrzeczu Wisły i Dniepru (neolit, eneolit, epoka brązu). *Archaeologia Bimaris* 3: 95-103. Poznań.
2008a *Wzory przeszłości studia nad neolitem środkowym i późnym*. Kraków.
2008b Transport kołowy, orka i udomowienie konia – wynalazek neolitu środkowego. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów Międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Kośko w 60. rocznicę urodzin*, 251-263. Poznań.

Kruk J., Milisauskas S.

1999 *Rozkwit i upadek społeczeństw rolniczych neolitu*. Kraków.

Krushelnytska L.I.

1971 Pamiatniki rannezhelznoho vremeni v verhoviah Zapadnogo Buga. *SA* 3: 5866.

1976 *Pivnichne Prykarpattya i zakhidna Volyn*. Kiev.

1985 *Vzaemozvyazki naseleण्या Prikaraptya i Volini z plemenami schidno i centralno Evropi*. Kiev.

1993 Cherepinsko-lagodivska grupa pamyatok. In: L. Krushelnytska (Ed.) *Pamyatki galshytatskogo periodu v mezirichchi Violi, Dnistra i Pripyati*, 158-238. Kiev.

1998 *Chornoliska kultura Serednogo Prodnistrovya (za materialami neporotivsko grupi pamyatok)*. Lviv.

2002 Pamyatka solevarinnya rubezhu rannoi i seredoi bronzy v pivnichno-schidnich Karpatach. *Zapiski Naukovo Tovaristva imeni Schevchenka*, vol. CCXLIV. *Praci Arkheologichnoy komisii*, 140-154.

2006 *Kultura Noa na zemlach Ukrani*. Lviv.

Kruts V.A.

1977 *Pozdnetripolskie pamyatniki Srednego Podneprovya*. Kiev.

Kruts V.A., Ryzhov S.M.

2000 Tripolye culture in Volhynia (Gorodsk-Volhynian group). In: A. Koško (Ed.) *The Western border area of the Tripolye culture*. *BPS* 9: 86-110.

Kryvaltsevich M.M. (Krywalcewicz M.M., Kryvalcevič M.M.)

2001 "Shnuravy garyzont" na Belarusi: prablemy identyfikatsyi i genezisa. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzatsyi do poczatków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.* *Archaeologia Bimaris* 2: 259-273. Poznań.

2003 K probleme kulturnogo vzaimodzejstva naselenia kultury so shnurovoy keramikoy Verhnego Podneprovya i Vostochnoy Pribaltsiki. In: *Drevnostsi Podvynia: istoricheskij aspekt*, 112-118. Sankt Petersburg.

2004a Novyia danyia pa khranalogii siarednedniaprouskay kultury. In: *Slavianskiy mir Polesya v drevnostsi i srednevekove. Materialy mezhdunarodnoy nauchnoy konferencii, Gomel, 19-20 Oktiabrya 2004*, 98-102. Gomel.

2004b Belaruskae Palesse u peryiad perakhodu ad nealitu da epokhi bronzy: prablemy i perspektyvy arkhealagichnaga vyvuchennya. In: A. Koško, A. Kalletchyts (Eds) *Wspólnota dziedzictwa kulturowego ziem Białorusi i Polski*, 137-162. Warszawa.

2005 Mnogovalikovayia keramika na territorii Belarusi. In: *Na poshanu Sofii Stanislavivn Berezanskoi. Zbirka naukovikh prats*, 149-156. Kiev.

- 2006a *Mogilnik siaredziny III – pachatku II tysiachagoddziau da n.e. na Verhnim Dniapry – Prorva 1*. Minsk.
- 2006b Stralitskya “Iunuly”. *Arkhealagichny zbornik* 1: 22-34. Minsk.
- 2006c Prablemy peryadyzacyi i khranalohii epokhi bronzy na terytoryi Paudnio-vay Belarusi. In: *Gistarychna-arkhealagichny zbornik* 22: 39-52. Minsk.
- 2007 Prorva 1. Cmentarzysko z połowy III – początku II tysiąclecia przed Chr. na górnym Naddnieprzu. *Archaeologia Bimaris. Monografie* 2. Poznań.
- Kryvaltsevich M., Kovalyukh N.
1999 Radiocarbon dating of the Middle Dnieper Culture from Belarus. In: A. Koško (Ed.) *The Foundation of Radiocarbon Chronology of Culture between the Vistula and Dnieper: 3150–1850 BC*. *BPS* 7: 151-162.
- Kryszczycki S.D., Buyskykh S.B., Otreshko V.M.
1990 *Antichnye poselenia Nizhnego Pobuzia (Arkheologicheskaya karta)*. Kiev.
- Ksenofont,
2003 *Wyprawa Cyrusa*, z języka greckiego przełożył W. Madyda. Warszawa.
- Kubiak Z.
1997 *Mitologia Greków i Rzymian*. Warszawa.
- Kubyshev A.I., Nechytailo A.L.
1991 Tsentry metalloobrabatyvayushchego proizvodstva Azovo-Chernomorskoy zony (k postanovke problemy). In: *Katakombnye kultury Severnogo Prichernomorya*, 6-21. Kiev.
- Kuchinko M.M., Okhrimenko H.V.
1991 *Arkheologichni pamyatky Volyni*. Lutsk.
- Kuhrt A.
1995 *The Ancient Near East c. 3000–330 BC*. London.
- Kulbaka V., Kachur V.
2000 *Indoeuropeiski plemena Ukrainy epokhy palleometalu*. Mariupol – Kiev.
- Kulikauskas P., Kulikauskienė R., Tautavičius A.
1961 *Lietuvos archeologijos bruožai*. Vilnius.
- Kull B.
1989 Untersuchungen zur Mittelbronzezeit in der Türkei und ihrer Bedeutung für die absolute Datierung der europäischen Bronzezeit. *PZ* 64: 48-73.
- Kurylenko V.Y., Bunyatyan K.P.
2006 Pamyatky serednyodniprovskoy kultury Serednyoho Podesennya. *Arkheologiya* 4: 88-94.
- Kuzmina E.E.
1980 I sho raz o diskovidnih psaliyah evraziyskih stepey. *KSIA* 161: 8-21.
1994 *Otkudy prishli Indoarii?* Moskva.

Kuznetsov P.F.

- 2006 The Emergence of Bronze Age Chariots in Eastern Europe. *Antiquity* 80: 638-645.

Kwiatkowska K.

- 2007 Analiza surowcowa i zabiegi konserwacyjne przedmiotów bursztynowych. In: A. Koško, M. Szmyt (Eds) *Opatowice. Wzgórze Prokopiaka*. Tom II, 229-231. Poznań.

Lagodovska O.F.

- 1948 Voycechivskiy mogilnik bronzovoi dobi na Volini. *Arkheologia* 2: 62-77.

Lakiza V.L.

- 2004 Pozni neolit, ranni i syaredni peryady bronzavaga veku Paynochna-Zakhodnyay Belarusi. Stan i perspektywy dasledavannya. In: A. Koško, A. Kallechyts (Eds) *Wspólnota dziedzictwa kulturowego ziem Białorusi i Polski*, 163-196. Warszawa.

- 2007 Cultural identification of "the corded materials" from Belorussian Neman river basin. *Lietuvos archeologija* 31: 23-38. Vilnius.

- 2008 *Starżytnastsi poznjaga nealitu i rannjaga peryyadu bronzavaga veku Belaruskaga Paniamonnya*. Mínsk.

Larina O., Okhrimenko G.

- 2007 Kraynaya vostochnaya periferiya zapadnoy lineynoy keramiki (prostranstvenno-geograficheskiy aspekt). *Revista Arheologica*, serie noua 3 (1-2): 89-109.

Larsen M.T.

- 1976 *Old Assyrian City State and its Colonies*. Kopenhagen.

- 1977 Partnerships in the Old Assyrian Trade. *Iraq* 39: 119-146.

Lasota-Moskalewska A.

- 1997 *Podstawy archeozoologii. Szczątki ssaków*. Warszawa.

Lazukov S.I.

- 1980 *Plejstocen teritorii SSSR*. Moskva.

Leemans W.F.

- 1960 *Foreign Trade in the Old Babylonia Period*. Leiden.

- 1968 Old Babylonian Letters and Economic History. *JESHO* 11: 171-216.

Leick G.

- 2001 *Mesopotamia. The Invention of the City*. London.

Levine M.

- 1999 The origins of horse husbandry on the Euroasian steppe. In: M. Levine, Y. Rassamakin, A. Kislenko, N. Tatarintseva (Ed.) *Late prehistoric exploitation of the Euroasian steppe*, 5-58. Cambridge.

Levy-Strauss C.

- 1992 Zasada wzajemności. In: M. Kempny, J. Szmatka (Eds) *Współczesne teorie wymiany społecznej. Zbiór tekstów*, 106-130. Warszawa.

Lewartowski K.

- 1989 *Decline of the Mycenaean Civilization. An Archaeological Study of Events in the Greek Mainland*. Wrocław – Warszawa – Kraków – Gdańsk.

Lewik P.

- 1998 Klimat. In: *Encyklopedia Geograficzna Świata. Europa*, 37-41. Kraków.

Libera J.

- 2001 *Krzemienne formy bifacjalne na terenach Polski i Zachodniej Ukrainy (od środkowego neolitu do wczesnej epoki żelaza)*. Lublin.
- 2005 Z badań nad krzemieniarstwem wczesnej epoki żelaza w dorzeczu Sanu – podstawy wydzielenia przemysłu kosińskiego. In: S. Czopek (Ed.) *Problemy kultury wysokiej*, 119-160. Rzeszów.
- 2009 Czy siekiery krzemienne mogą być wyznacznikiem kultury amfor kulistych? In: H. Taras A. Zakościelna (Eds) *Hereditas praeteriti. Additamenta archaeologica et historica dedicata Ioanni Gurba. Octogesimo Anno Nascendi*, 169-179. Lublin.

Libera J., Sobieraj J.

- 2008 Topory z łopatkowatym ostrzem na ziemiach wschodniej Polski. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60 rocznicę urodzin*, 301-319. Poznań.

Lichardus, V.J.

- 2001 Die Geweihaxt von Dudarkov und die spätmykenischen Einflüsse im ukrainischen Raum. *Eurasia Antiqua* 7: 75-93.

Lichardus V.J., Echt R., Iliev I.K., Christov C.J.

- 2002 Die Spätbronzezeit an der Unteren Tundža und die ostägäischen Verbindungen in Südostbulgarien. *Eurasia Antiqua* 8: 160-167.

Lichardus J., Vladár J.

- 1996 Karpatenbecken-Sintašta-Mykene. Ein Beitrag zur Definition der Bronzezeit als historische Epoche. *Slovenská Archeológia* 44: 25-93.

Limet H.

- 1977 Les Schemas du Commerce Neo-Sumerien. *Iraq* 39: 51-58.

Littauer M.A., Crouwel J.H.

- 1979 *Wheeled Vehicles and Ridden Animals in the Ancient Near East*. Leiden.

Litvinenko R.A.

- 1997 *Kolesnyi transport epokhi bronzy evrazijskoj Stepi i Lesostepi*. Donetsk.

Litvinenko R.O.

- 2005 Do problemy metalovyrobnyctva kultury Babyne. In: *Materialy II-go mizhnarodnoho Marmyskoho polyovoho seminaru "problemy gimynchoi arkheologii"*, 119-512. Alchevsk.

Liverani M.

- 1993 Akkad: an introduction. In: M. Liverani (Ed.) *Akkad: The first world empire. Structure, ideology, traditions*, 1-10. Padova.

Loze I.A.

- 1979 *Pozdnyy neolit i rannyya bronza Lubanskay ravniny*. Riga.
2000 Late Neolithic Amber from the Lubāna Wetlands. In: *Prehistoric Art in the Baltic Region. Acta Academiae Artium Vilnensis* 20: 63-78.

Lurie A.Ch.

- 1988 *Genezis medistyh peschanikov*. Moskva.

Lysenko S.D.

- 1998 Rezultaty issledovaniya mogilnika Malopolovetskoje-3 na Kievshinie v 1993-1997 godach. In: A. Koško, J. Czebreszuk (Eds) *"Trzcinec" – system kulturowy czy interkulturowy proces?*, 95-117. Poznań.
2001 *Sredne Podniprovyia za dobi piznoi bronzi*. Manuscript. Institut Archeologii Nacionalnoy Akademii Nauk Ukraini, Kiev.
2002 K voprosy o lokalizatsii kommunikatsiy epokhi pozdnei bronzy v Pravoberezhnoi lesostepi. In: *Isotrychna nauka: problemy rozvytku. Materialy mizhnarodnoi naukovoï konferentsii. Sektsia "Arkheologiya"*, 104-111. Luhansk.
2004 Doslidcheniya k archeologicheskoy karte Fastivskogo raiona (1999-2004 gg.). In: *Archeologichni pamyatki Fastivshchini. Materiali do archeologichnoy karti Kiiivskoi oblasti*, 85-152. Fastiv.
2005 Kievo-Fastovskiy uchastok severonoi vetki transevropeskogo lesostepnogo puti. In: *Problemy arkheologii Serednyoho Podniprovyia: Do 15-richya zasnovannya Fastivskoho krayeznavchoho muzeyu*, 114-119. Kiev – Fastiv.
2006 Kompleks pamyatnikov epokhi bronzy-nachalarnnogo zheleznogo veka u S. Khodosovka (po rezultatam issledovaniy 2003 g.). In: *Okhorona kulturnoy spadshchyny Kyivskoi oblasti*, 91-137. Kiev.
2009 Noviyе pamyatniki kultury sharovidnykh amfor na pravoberezhnoy Kievshchine (manuscript).

Lysenko S.D., Szmyt M.

- 2010 Śródkowe naddnieprze jako graniczny areał osadnictwa ludności kultury amfor kulistych. In: M. Ignaczak, A. Koško, M. Szmyt (Eds) *Między Bałtykiem a Morzem Czarnym: szlaki Międzymorza w IV – I tys. przed Chr. Archaeologia Bimaris. Dyskusje* 4. Poznań. (in print).

Lysenko S.S.

- 2006 Prykrasy naselennya Ukrainy doby piznoyi bronzy. Autoreferat dissertatsii kandydata istoricheskikh nauk. *NA IA NANU* 12 (842).

Ławecka D.

2006 *Północna Mezopotamia w czasach Sumerów*. Warszawa.

Machajewski H., Rola J. (Eds)

2006 *Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych*. Poznań.

Machnik J.

1966 *Studia nad kulturą ceramiki sznurowej w Małopolsce*. Wrocław.

1978 Wczesny okres epoki brązu. In: J. Machnik, B. Gediga, J. Miśkiewicz, W. Hensel (Eds) *Wczesna epoka brązu. Prahistoria ziem polskich* 3, 9-136. Wrocław – Warszawa – Kraków – Gdańsk.

1979a Ze studiów nad kulturą ceramiki sznurowej w dorzeczu górnego Dniestru. *Acta Archaeologica Carpathica* 19: 51-71.

1979b Krąg kulturowy ceramiki sznurowej. In: W. Hensel, T. Wiślański (Eds) *Prahistoria Ziemi Polskiej*. Tom II, Neolit, 337-412. Wrocław – Warszawa – Kraków – Gdańsk.

1998a Stan i perspektywy badań kultury ceramiki sznurowej w międzyrzeczu górnej Wisły, Bugu i Dniestru. *Sprawozdania Archeologiczne* 50: 13-29.

1998b Uwagi o najstarszym osadnictwie pasterskiej ludności kultury ceramiki sznurowej (III tysiąclecie przed Chr.) w strefie karpackiej. In: J. Gancarski (Ed.) *Dzieje Podkarpacia*, T. II, 99-120. Krosno.

1999 Radiocarbon chronology of the Corded Ware culture on Grzęda Sokalska. A Middle Dnieper traits perspective. In: A. Kośko (Ed.), *The Foundations of radiocarbon chronology of cultures between the Vistula and Dnieper, 3150-1850 BC*. *BPS* 7: 221-250.

2001 Kultura ceramiki sznurowej w strefie karpackiej (stan i perspektywy badawcze). In: J. Gancarski (Ed.) *Neolit i początki epoki brązu w Karpatach polskich*, 115-137. Krosno.

2003 An Interrupted Process of Cultural Integratin Between the Upper Bug, Vistula and Dniestr Rivers in the Early Second Half of the Third Millennium BC (In Light of Taxonomic and Chronological Analyses of Grave Assemblages on Grzęda Sokalska). In: A. Kośko, V.I. Klochko (Eds) *The Foundations of Radiocarbon Chronology of Cultures Between the Vistula and Dnieper: 4000–1000 BC*. *BPS* 12: 212-240.

2004 Pasterstwo u społeczeństw kultury ceramiki sznurowej w dorzeczu górnej Wisły, górnego Bugu i Dniestru. In: A. Kośko, M. Szmyt (Eds) *Nomadyzm a pastoralizm w Międzyrzeczu Wisły i Dniepru (neolit, eneolit, epoka brązu)*. *Archaeologia Bimaris* 3: 137-143. Poznań.

2006 Rola migracji w pradziejach. Problemy dyskusyjne. In: A. Furdal, W. Wysockański (Eds) *Migracje, dzieje, typologia, definicje*. 29-37. Wrocław.

Machnik J., Bagińska J., Koman W.

- 2001 Nowa, synkretyczna grupa kultury ceramiki sznurowej w Polsce środkowo-wschodniej. In: B. Ginter, B. Drobniewicz, B. Kazior, M. Połtowicz (Eds) *Problemy epoki kamienia na obszarze Starego Świata. Księga Jubileuszowa dedykowana Profesorowi Januszowi K. Kozłowskiemu*, 390-400. Kraków.
- 2009 Neolityczne kurhany na Grzędzie Sokalskiej w świetle badań archeologicznych w latach 1988–2006, Kraków.

Machnik J., Kadrow S.

- 1997 *Kultura mierzanowicka. Chronologia, taksonomia i rozwój przestrzenny*. Kraków.

Machnik J., Pavliv D., Petehyrych V.

- 2003 Kurganne pochovannja rannoskitskogo chasu u verchivjach Dnistra. In: J. Gancarski (Ed.) *Epoka brązu i wczesna epoka żelaza w Karpatach polskich*, 531-548. Krosno.
- 2005a Wyniki badań wykopaliskowych polsko-ukraińskiej ekspedycji archeologicznej we wsi Bykiw, w dorzeczu górnego Dniestru, w 2003 r. *Rocznik Polskiej Akademii Umiejętności* (R. 2003/2004), 285-295.
- 2005b Z badań nad najdawniejszymi dziejami rejonu Drohobycza. In: W. Bonusiak (Ed.) *Drohobycz miasto wielu kultur*, 9-59. Rzeszów.
- 2006 Barrow of the late Corded Ware culture from Bikiv, Drohobych district. In: Harmata K., Machnik J., Starkel L. (Eds) *Environment and man at Carpathian Foreland in the upper Dniester catchment from Neolithic to early mediaeval period*, 195-227. Kraków.

Machnik J., Pavliv D., Pasterkiwicz W., Petehyrych V.

- 2007 Archeologiczne badania w Bykowie koło Drohobycza i na Wysoczyźnie Wojniłowskiej, między rzeką Siwką a Łomnicą. *Rocznik Polskiej Akademii Umiejętności* (R. 2006/2007), 311-325. Kraków.

Machnik J., Pilch A.

- 1997 Zaskakujące odkrycie zabytków kultury środkowodnieprzańskej w Młodowie-Zakąciu, koło Lubaczowa, w woj. przemyskim. *Sprawozdania Archeologiczne* 49: 143-170.

Majek K.

- 2003 *Problem pochodzenia tzw. skarbów strzyżowskich*. Poznań. (MA thesis).

Makarowicz P.

- 1998 *Rola społeczności kultury iwieńskiej w genezie trzcienieckiego kręgu kulturowego (2000–1600 BC)*. Poznań.
- 2000 Concerning the Development of the Metallurgy in Early Bronze Age Societies on the Polish Lowlands. *Lietuvos Archeologija* 19: 221-239.
- 2003 The Construction of Social Structure: Bell Beakers and Trzcinec Complex in North-Eastern Part of Central Europe. *Przegląd Archeologiczny* 51: 123-158.

- 2005 Gesellschaftliche Strukturen der Glockenbecherkultur im Gebiet zwischen Weichsel und Oder. *Ethnographisch-Archäologische Zeitschrift* 1: 27-58.
- 2008 Elitarne pochówki z kurhanu komarowskiego w Ivanju na Wołyniu – zarys możliwości interpretacyjnych. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów między morza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 333-352. Poznań.
- 2009a Geneza kurhanów w trzcinieckim kręgu kulturowym. In: H. Kowalewska-Marszałek, P. Włodarczak (Eds) *Kopce neolityczne i z początków epoki brązu w świetle nowych i najnowszych badań. Materiały z konferencji w Niepołomnicach 20-21.09.2007*. Kraków – Warszawa (in print).
- 2009b *Trzciniecki krąg kulturowy – wspólnota pogranicza Wschodu i Zachodu Europy*. Poznań (in print).
- Makkay J.
- 1982 The Earliest Use of Helmets in South-East Europe. *ActaArchHung* 34: 3-22.
- 1992 Funerary sacrifices of the Yamna-complex and their Anatolian (Hittite) and Aegean (Mycenaean and Homeric) parallels. *ActaArchHung* 44: 213-237.
- 1999 The Mycenaean World, the Mycenaean Periphery and the Carpathian Basin. In: *H periphereaia tou mykenaikou kosmou. A' Diethnes Diepistemoniko Symposio, Lamia, 25-29 Septembriou 1994*, 47-54. Lamnia.
- 2000 *The Early Mycenaean Rulers and the Contemporary Early Iranians of the Northeast*. Budapest.
- Makohonienko M., Latałowa M., Milecka K., Okuniewska-Nowaczyk I., Nalepka D.
- 2004 Artemisia L. In: M. Ralska-Jasiewiczowa, M. Latałowa, K. Wasylkowa, K. Tobolski, E. Madeyska, H.E. Wright Jr., Ch. Turner (Eds) *Late Glacial and Holocene history of vegetation in Poland based on isopollen maps*, 253-261. Kraków.
- Makowiecki D., Makowiecka M.
- 2000 Gospodarka zwierzętami społeczności kultury pucharów lejkowatych (grupy: wschodnia i radziejowska) oraz kultury amfor kulistych In: A. Koško (Ed.) *Archeologiczne badania ratownicze wzdłuż trasy gazociągu tranzytowego, Tom III Kujawy, cz. 4, Osadnictwo kultur późnoneolitycznych oraz interstadium epok neolitu i brązu: 3900–1400/1300 przed Chr.*, 347-378 Poznań.
- 2005 Stan badań nad użytkowaniem zwierząt w okresie rozwoju postłużyckich ugrupowań “pomorsko-kloszowych”. In: M. Fudziński, H. Paner (Eds) *Aktualne problemy kultury pomorskiej*, 349-358. Gdańsk.

- Malejew Y.M., Mazurik J., Paniszko S.
 2004 Grób ludności kultury amfor kulistych z III tysiąclecia p.n.e. z miejscowości Ozdiw w okolicy Łucka na Ukrainie. *Sprawy Wschodnie* 1 (5): 97-101.
- Maleyev Y.M.
 1996 Selected Graves of Globular Amphora Culture from Volhynia and Podolia. In: A. Koško (Ed.) *Eastern Exodus of the Globular Amphora People: 2950-2350 BC. BPS* 4: 53-61.
- Maleyev Y.M., Pryshchepa B.
 1996 Grave of Globular Amphora Culture from Tovpyzhyn (District of Rivne, Ukraine). In: A. Koško (Ed.) *Eastern Exodus of the Globular Amphora People: 2950-2350 BC. BPS* 4: 62-69.
- Malinowski T.
 2004 (Ed.) *Komorowo, stanowisko 1. Grodzisko kultury łużyckiej i osadnictwo wczesnośredniowieczne. Badania specjalistyczne*, Zielona Góra.
 2006 *Komorowo, stanowisko 1: grodzisko kultury łużyckiej – faktoria na szlaku bursztynowym*. Rzeszów.
 2009 Domniemane ślady oddziaływań tarnobrzeskich w zachodniej Małopolsce. In: S. Czopek, K. Trybała-Zawiślak (Eds) *Tarnobrzeska kultura łużycka – źródła i interpretacje*. Rzeszów (in print).
- Mallory J.P., Adams D.Q.
 1997 *Encyclopedia of Indo-European Culture*. Chicago.
- Małecki R.
 1995 Magiczno-religijna funkcja starożytnych wozów. *Archeologia Polski* 40 (1-2): 91-105.
- Małkowski S.
 1929 O odkryciu złota miedzi rodzimej w Mydzku na Woluniu. *Posiedzenia P.I.G.* 6: 757-774.
 1931 Z geologii Wolynia. *Rocznik Wolynski* 2: 384-402.
- Maran, J.
 1997 Neue Ansätze für die Beurteilung der Balkanisch-Ägäischen Beziehungen im 3. Jahrtausend v. Chr. In: P. Roman (Ed.) *The Thracian World at the Crossroads of Civilizations*, 171-192. Bucarest.
 2007 Seaborne Contacts Between the Aegean, the Balkans and the Central Mediterranean in the 3rd Millennium BC: the Unfolding of the Mediterranean World. In: I. Galanaki, H. Tomas, Y. Galanakis, R. Laffineur (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders. Aegaeum* 27: 3-21.
- Marchelak I., Tyszler L.
 2003 Osada kultury łużyckiej z epoki brązu i okresu halsztackiego. In: R. Grygiel

(Ed.) *Via Archaeologica Lodziensis, Tom I, Ratownicze badania archeologiczne na stanowisku 6-7 w Kowalewicach, pow. Zgierz, woj. Łódzkie (trasa autostrady A-2)*, 25-337. Łódź.

Marciniak A.

- 2004 Mikrospołeczny wymiar pasterstwa i nomadyzmu i tafonomiczne podstawy ich identyfikacji w materiałach faunistycznych. In: A. Koško, M. Szmyt (Ed.) *Nomadyzm i pastoralizm w międzyrzeczu Wisły i Dniepru (neolit, eneolit, epoka brązu)*. *Archaeologia Bimaris* 3: 35-43. Poznań.
- 2006 Problematyka stref kontaktowych w pradziejach. In: H. Machajewski, J. Rola (Ed.) *Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych*, 15-21. Poznań.

Markova K.

- 1993 Bersteinfunde in der slowakei während der Bronzezeit. In: C. Beck, J. Bouzek (Eds) *Amber in Archaeology. Preceedings of the Second International Conference on Amber in Archaeology, Libice 1990*, 171-178. Praha.

Maruszczak H.

- 2002 Osobliwości stosunków fizjograficznych Roztocza i ich znaczenie dla działalności człowieka w czasach prehistorycznych i we wczesnym średniowieczu. In: B. Balcer, J. Machnik, J. Sitek (Eds) *Z pradziejów Roztocza na ziemi zamojskiej*, 207-221. Kraków.

Matuszewska A.

- 2003 *Udział wzorców kulturowych wiązanych z pucharami dzwonołowymi w rozwoju społeczności międzyrzecza Wisły i Dniepru*. Poznań. (MA thesis).
- 2007 *Dolnoodrzańska enklawa kultury ceramiki sznurowej w ramach circumbałtyckiego kręgu KCSZ*. Poznań (PhD thesis).

Matuszkiewicz W.

- 1991 Szata roślinna. In: L. Starkel (Ed.) *Geografia Polski. Środowisko przyrodnicze*, 445-494. Warszawa.

Matuszkiewicz W., Matuszkiewicz A.

- 1985 Zur Syntaxonomie der Eichen-Heinbuchenwälder in Polen. *Tuexenia* 5: 473-489.

Mauss M.

- 2001 *Antropologia strukturalna*. Warszawa.

Maydar D.

- 1981 *Pamyatniki istorii i kultury Mongolii*. Moskva.

Mazurik Y., Panyshko S.

- 1998 Nova pokhovalna pamyatka kultury kulyastikh amfor na Volini. *Volyno-Podilski Arkheologichni Studii* 1, 129-130. Lviv.

Mazurowski R.F.

- 1983 Bursztyn w epoce kamienia na ziemiach polskich. *Materiały Starożytne i Wczesnośredniowieczne* 5: 7-134.

Maxwell-Hyslop K.R.

- 1977 Sources of Sumerian Gold. *Iraq* 39: 83-86.

McCaslin D.E.

- 1980 *Stone Anchors in Antiquity: Coastal Settlements and Maritime Trade-Routes in the Eastern Mediterranean ca 1600-1050 BC*. Göteborg.

Medwecka-Kornaś A.

- 1972 Czynniki naturalne, wpływające na rozmieszczenie geograficzne roślin w Polsce. In: W. Szafer, K. Zarzycki (Eds) *Szata roślinna Polski*. Tom I, 35-94. Warszawa.
- 1977 Czynniki naturalne, wpływające na rozmieszczenie geograficzne roślin w Polsce. In: W. Szafer, K. Zarzycki (Eds) *Szata roślinna Polski*. Tom I, 35-94 (wydanie trzecie pierwsza edycja w 1972). Warszawa.

Mee Chr.

- 1994 Anatolia and the Aegean in the Late Bronze Age. *AAS* 9: 137-148.

Meier-Arendt W. (Ed.)

- 1992 *Bronzezeit in Ungarn. Forschungen in Tell-Siedlungen an Donau und Theiss*. Frankfurt am Main.

Meissner B.

- 1920 *Babylonien und Assyrien*. Heidelberg.

Mellaart J.

- 1982 Mesopotamian Relations with the West Including Anatolia. In: H.-J. Nissen, J. Renger (Eds) *Mesopotamien und seine Nachbarn. Politische und Kulturelle Wechselbeziehungen im Alten Vorderasien vom 4. bis 1. Jahrtausend v. Chr.*, 7-12. Berlin.

Metz F.

- 2006 O nedavney nakhodke v Baden-Wurtemberge. In: *Sovremennye problemy arkheologii Rossii* 2: 43-45. Novosibirsk.

Michalčičin I., Markus I., Okhrimenko G.

- 2005 Bojovi kamjaní sokiri Pívníchnogo Prikarpattja i Voliní. In: G. Okhrimenko (Ed.) *Arkheologična spadshčina Jana Fítcke*, 364-385. Luck.

Michalski J.

- 1986 *Sprawozdanie z badań wykopaliskowych przeprowadzonych w okresie 4-22 wrzesień 1986 roku na stanowisku 5 w Bielawskiej Wsi, gm. Bielawy, woj. skierniewickie* (maszynopis przechowywany w archiwach Muzeum w Łowiczu – Typescript held in the archives of the Łowicz Museum).
- 2002 Skarb z Bąkowa Dolnego i jego właściciel, *Archeologia Żywa* 20 (1): 14-18.

Michałowski P.

- 1993 Memory and Deed: the Historiography of the Political Expansion of the Akkad State. In: M. Liverani (Ed.) *Akkad, the First World Empire. Structure, Ideology, Tradition*, 69-90. Padova.

Mierzwiński A.

- 2003 *Znaki utrwalone w glinie. Społeczno-obrzędowe aspekty działań wytwórczych końca epoki brązu wczesnej epoki żelaza. Model nadodrzański*. Wrocław.

Mihăilescu-Bîrliba V.

- 2001 Mormontul unei tinere căpetenii de la începutul epocii bronzului (Mastacăn, jud. Neamț – “cultura amforelor sferice”). *Memoria Antiquitatis* 22: 157-217.
- 2005 Die Grabstätte eines jungen Häuptlings vom Beginn der Bronzezeit (Mastacăn, Kreis Neamț – “Kugelamphorenkultur”). *Arheologia Moldovei* 28: 75-124.

Mihăilescu-Bîrliba V., Szmyt M.

- 2003 Radiocarbon chronology of the Moldavian (Siret) subgroup of the Globular Amphora culture. In: A. Koško, V.I. Klochko (Eds) *The Foundations of radiocarbon chronology of cultures between the Vistula and Dnieper: 4000–1000 BC*. *BPS* 12: 82-112.

Mikov V.

- 1958 *Zlatnoto skrovishche ot Vlchitrn*. Sofia.

Milano L.

- 1995 Ebla: A Third Millennium City-State in Ancient Syria. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 1219-1230. London – New York.

Milisauskas S., Kruk J.

- 1991 Utilization of Cattle for Traction During the Later Neolithic in Southeastern Poland. *Antiquity* 65 (248): 561-566.

Minns E.

- 1913 *Scythians and Greeks*. Cambridge.

Mityk J.

- 1986 *Geografia fizyczna części świata*. Warszawa.

Mizerski W.

- 2002 *Geologia Polski dla geografów*. Warszawa.

Moran L.W.

- 1992 *The Amarna Letters*. Baltimore – London.

Motsya A.P., Khalikov A.Kh.

- 1989 Novi doslidzhennya shlyakhu z Bulgara v Kiev (poperednye povidomlennya). *Arkheologia* 4: 143-149.
- 1997 *Bulgar – Kiev: puti – svyazi – sudby*. Kiev.

Moucha V.

- 1963 Die Periodisierung der Uněticer Kultur in Böhmen. *Sbornik Československé Společnosti Archeologické* 3: 9-60.

Movsha T.G.

- 1957 Mednye ukrashenia iz Kieva. *KSIIMK* 70: 94-98.
1985 Vzaemovidnosyny Tripilla-Kukuteni s sinchronnymi kulturami Tsentralnoy Evropy. *Arkheologia* 51: 22-31.

Mozolevsky B.N.

- 1987 Malyi Chertomlyk. In: *Skify Severnogo Prichernomor'ya*, 63-74. Kiev.

Mozsolics A.

- 1967 *Bronzefunde des Karpatenbeckens. Depotfundhorizonte von Hajdúsámson und Kosziderpadlás*. Budapest.

Muhly J.D.

- 1977 The Copper Ox-Hide Ingots and Bronze Age Metals Trade. *Iraq* 39: 73-82.
1985 Sources of Tin and the Beginning of Bronze Metallurgy. *AJA* 89: 275-291.

Murzin V.

- 1996 Nadczarnomorska Scytia. In: J. Chochorowski (Ed.) *Koczownicy Ukrainy*, 49-64. Katowice.

Müller-Karpe, H.

- 1980 *Handbuch der Vorgeschichte: Die Bronzezeit*. Munich.

Mykhalchyshyn I.P.

- 1993 Kamyani vyroby z Ovrutskoho povitu. *Naukovi zapysky Lvivskoho istorychnoho muzeyu* 1, 18-26.
2005 Pamyatkookhoronni archeologichni rozvidky u Volochyskomu r-ni Khmelnytskoi obl. In: *Archeologichni doslidzhennya v Ukraini 2003–2004 rr.*, 222-224. Zaporizh'ya.
2006 Rozvidky v mezhyrichi verkhiviyiv r. Pivdennyi Bug i r. Zbruch u 2005 r. In: *Archeologichni doslidzhennya v Ukraini 2004–2005 rr.*, 284-285. Kiev – Zaporizh'ya.

Mylonas G.E.

- 1973 Ο Ταφικός Κύκλος Β των Μυκηνίων. Athens.

de Navarro J.M.

- 1925 Prehistoric Routes Between Northern Europe and Italy Defined by the Amber Trade. *The Geographical Journal* 66: 481-507.

Nawroth M.

- 2007 Der Goldfund von Vetttersfelde: vom Schwarzen Meer in die Lausitz. In: *Im Zeichen des goldenen Greifen. Königsgräber der Skythen*, 318-327. München – Berlin – London – New York.

Nazarov V.V., Otroshchenko V.V.

- 2008 Bronzoyi nizh z ostrova Berezan. In: *Starozhytnosti Verkhnyogo Prydnistrovya. Juvenileinyi zbiryk na chest 60-richchya Ju. M. Maleeva*, 123-124. Kiev.

Nechytailo A.L.

- 2005 Ob odnom iz gorno-metallurgicheskikh tsentrov katakombnoy kulturno-istoricheskoy obshchnosti. In: *Pastusheskie skotovody vostochnoevropейskoy stepi i lesostepi epokhi bronzы (istoriografiya, publikatsii)*. *AVL* 19: 74-93. Voronezh.

Needham S.

- 2001 When Expediency Broaches Ritual Intention: the Flow of Metal Between Systemic and Buried Domains. *JRAI*: 275-298.

Neprina V.I.

- 1976 *Neolit yamochno-grebenchatoy keramiki na Ukraine*. Kiev.

Nikolaeva N., Safronov V.

- 1974 Proischozhdeniye dolmennoy kultury Severo-Zapadnogo Kavkaza. In: *Voprosy okhrany, klassifikatsii i ispolzovaniya arkheologicheskikh pamyatnikov*, 174-198. Moskva.

Nikolova A.V.

- 1999 Radiocarbon Dates from the Graves of Yamnaya and Catacomb Cultures of the Dnieper Right Bank. In: A. Koško (Ed.) *The Foundation of Radiocarbon Chronology of Culture between the Vistula and Dnieper: 3150–1850 BC*. *BPS* 7: 103-128.

Nikytenko I.S.

- 2008 *Kamyana syrovyna Kryvorizhzhya doby bronzы*. Avtoreferat Dissertatsii Kandidata Geologicheskikh Nauk. Kiev.

Nosek S.

- 1967 *Kultura amfor kulistych w Polsce*. Wrocław – Warszawa – Kraków.

Nosov A.A.

- 1865 Otkrytie mednyh rud s drevnimi razrabotkami v bakhmutskom ujezde. In: *Gornyi zhurnal*, 315. Sankt Petersburg.
- 1868 Otkrytie mednoi rudy s drevnimi razrabotkami v Ekaterinoslavskoy gubernii. In: *Gornyi zhurnal*, 255-271. Sankt Petersburg.

Nowaczyk Sz., Rola J.

- 2009 Społeczności KAK w rejonie Żuławki Małej. In: J. Rola (Ed.) *Późnoneolityczny węzeł komunikacyjny w strefie środkowej Noteci (Żuławka Mała, gmina Wyrzysk)*, 75-111. Poznań.

Nowak M.

- 2001 Osadnicze i socjo-polityczne modele południowo-wschodniej grupy kultury pucharów lejkowatych. In: J. Kozłowski, E. Neustupny (Eds) *Archeologia przestrzeni*, 127-151. Kraków.

- 2004 Udział elementów lendzielsko-polgarskich w formowaniu się kultury pu-
charów lejkowatych w Małopolsce? *Materiały Archeologiczne Nowej Huty*
24: 121-138.
- Nowakowski J., Prinke A., Rączkowski W. (Eds)
2005 *Biskupin... i co dalej? Zdjęcia lotnicze w polskiej archeologii*. Poznań.
- Oates J.
1991 Babylonia and Elam in Prehistory. In: *Mesopotamie et Elam. Actes de
la XXXVIeme Rencontre Assyriologique Internationale, Gand, 10-14 Juillet
1989*, 23-26. Ghent.
- Oguchi H.
1999 Trade Routes in the Old Assyrian Period. *Al-Rafidan* 20: 85-106.
2006 The Date of the Beginning of Khabur Ware Period 3: Evidence from the
Palace of Qarni-Lim at Tell Leilan. *Al-Rafidan* 27: 45-58.
- Okhrimenko G.
1994 Neolit Volini. Lutsk.
2001 *Kultura liniyno-strichkovoy keramiki na Volini*. Lutsk.
2005 Volyn ta Volynske Polissya v neoloi, eneoliti, epokhu bronzы. In: G. Okh-
rimenko (Ed.) *Arkheologichna spadshchyna Jana Fítzke*, 122-163. Lutsk.
- Okhrimenko G., I. Markus, V. Tkach
2005 Rozvitok ozbroennya pervisnogo naselennya Volini. In: G. Okhrimenko
(Ed.) *Arkheologichna spadshchina Jana Fítzke*, 346-363. Lutsk.
- Okulicz J.
1973 *Pradzieje ziem pruskich od późnego paleolitu do VII w n.e.* Wrocław.
- Olbrýs M.
2007 Syria Zachodnia u schyłku III tysiąclecia p.n.e. In: D. Szeląg (Ed.) *Historia
i kultura państwa III dynastii z Ur*, 99-108. Warszawa.
- Olchowski V.S.
2005 *Monumentalnaia skulptura naselenia zapadnoy chasti evraziyskikh stepey epo-
khi rannego zheleza*. Moskva.
- Olexa L.
2002 Kult. In: J. Garncarski (Ed.) *Między Mykenami a Bałtykiem. Kultura Oto-
mani-Füzesabony*, 89-93. Krosno – Warszawa.
- Orlińska G.
2007 Materiały osadnicze z Transboru, gm. Latowicz, woj. mazowieckie. *Wiado-
mości archeologiczne* 59: 115-163.
- Orlovskaya L.B.
1990 Spektroanaliticheskoe issledovanie tsvetnogo metalla epokhi rannei bronzы
Moldovy (predvaritelnye itogi). In: E.V. Yarovoy (Ed.) *Kurgany eneolita-
-bronzы Nizhnego Podnestrovyia*, 241-245. Kishinev.

Ossowski W.

1999 *Studia nad łodziami jednopiennymi z obszaru Polski*. Gdańsk.

2006 Pradziejowe i wczesnośredniowieczne środki transportu wodnego w Polsce. In: H. Machajewski, J. Rola (Eds) *Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych*, 253-268. Poznań.

Ostroverkhov A.S.

1981 Olbia i torgovye puti Skifii. In: *Drevnosti Severo-zapadnogo Prichernomor'ya*, 84-94. Kiev.

Ostroverkhov A.S., Toshev G.N.

1985 Skifskiy konskiy nalobnik. *Arkheologia* 49: 75-78.

Otroshchenko V.V.

1976 Konstruktivnye osobennosti dlinnykh kurganov. In: *Novye otkrytia arkheologov Ukrainy*, 16-18. Kiev.

1986 Belozerskaya kultura. In: *Kultury epokhi bronzы na territorii Ukrainy*, 117-152. Kiev.

1995 Puti obmena – puti migratsiy. In: *Epokha bronzы Dono-Donetskogo regiona*, 18-19. Luhansk.

2005a Dnipro-Donetsky oseredok kulturogenezy (postanovka problemy). In: *Materialy II-oi Luhanskoї mizhnarodnoy istoryko-arkheologichnoy konferentsii "Problemy doslidzhennia pamyatok arkheologii Skhidnoi Ukrainy"*, 36-38. Luhansk.

2005b Epoka eneolitu. In: L.L. Zeliznyak (Ed.) *Akkheologiya Ukrainy*, 106-203. Kiev.

2007 Polemika stosovno zakhidnogo vektora ruhu kolisnychnykh. *Zapysky Naukovogo tovarystva imeni Shevchenka. Pratsi arkheologichnoy komisii* 253: 206-214. Lviv.

Otroshchenko V.V., Savovskiy I.P., Tomaszewski V.A.

1997 Kurgannaya gruppa Ryasnye Mogily u s. Balki. In: *Kurgannye mogilniki Ryasnye Mogily i Nosaki*, 16-60. Kiev.

Otroshchenko V.V., Tupchienko M.P.

2005 Bronzovi klepani kazany ta Donetskyi girnycho-metalurgiynyi tsentr. In: *Problemy girnychoi arkheologii. Materialy II Mizhnarodnogo Kartamyckogo Polyovogo Arkheologichnogo Seminaru*, 176-188. Alchevsk.

Ozols J.

1962 *Ursprung und Herkunft der Zentralrussischen Fatjanovo-Kultur* (Berliner Beiträge zur Vor- und Frühgeschichte 4). Berlin.

Palincaş N.

2007 Contacts with the Aegean and Their Social Impact in the Late Bronze Age in the Lower Danube. In: I. Galanaki, H. Tomas, Y. Galanakis, R. Laffi-

- neur (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders*. *Aegeum* 27: 231-237. Liège.
- Papiernik P., Rybicka M.
2002 *Annopol. Osada kultury pucharów lejkowatych na Pojezierzu Gostynińskim*. Łódź.
- Parczewski M.
1991 *Początki kształtowania się polsko-ruskiej rubieży etnicznej w Karpatach. U źródeł rozpadu Słowiańszczyzny na odłam wschodni i zachodni*. Kraków.
- Pare, C.F.E.
1987 *Wheels with Thickened Spokes, and the Problem of Cultural Contact Between the Aegean and Europe in the Late Bronze Age*. *OJA* 6: 43-62.
1992 *Wagons and the Wagon-Graves of the Early Iron Age in Central Europe*. Oxford.
2000 *Bronze and the Bronze Age*. In: C.F. E Pare (Ed.) *Metals Make the World Go Round. The Supply and Circulation of Metals in Bronze Age Europe*, 1-38. Oxford.
- Parker B.J., Dodd L.S.
2003 *The Early Second Millennium Ceramic Assemblage from Kenan Tepe, Southern Turkey. A Preliminary Assessment*. *AnSt* 53: 33-69.
- Parzinger H.
1998 *Stepnye kochevniki na vostoke Centralnoy Evropy*. *VDI* 2: 104-115.
- Paschalidis C.
2007 *Euboea at the Crossroads of the Metal Trade: the Aegean and the Black Sea in the Late Bronze*. In: I. Galanaki, H. Tomas, Y. Galanakis, R. Lafineur (Eds) *Between the Aegean and Baltic Seas. Prehistory Across Borders*. *Aegeum* 27: 433-445. Liège.
- Patokova E.F.
1979 *Usatovskoje posileniye i mogilnik*. Kiev.
- Pavliv D.
1993 *Novi pamyatki luzicko kulturi na zachodi Ukraini*. In: L. Krushelnicka (Ed.) *Pamyatki galshtatskogo periodu v mezirichchi Violi, Dnistra i Pripyati*, 11-56. Kiev.
2008 *Ulvivetski kelykhy. Materialy i doslidzhennia z arkheologii Prykarpattia i Volyni* 12: 68-102.
- Pawłowska S.
1977 *Charakterystyka statystyczna i elementy flory polskiej*. In: W. Szafer, K. Zarzycki (Eds) *Szata roślinna Polski*, 129-206. Warszawa.

- Payne S.
1990 Field Report on the Dendra Horses. In: R. Hägg, G. Nordquist (Eds) *Celebrations of Death and Divinity in the Bronze Age Argolid*, 85-106. Stockholm.
- Pearce M.
1998 New Research on the "Terramare" of Northern Italy. *Antiquity* 72: 743-746.
- Peleshchishin M.
1985 Kultura voronkovidnych sudov. In: *Arkheologia Ukrainy SSR* 1, 273-280. Kiev.
- Pelisiak A.
2005 Pogranicze kultury trypolskiej i kultury pucharów lejkowatych. Stan badań. In: *Kultura trypolska. Wybrane problemy*, 32-41. Stalowa Wola.
2007 The Funnel Beaker Culture Settlement Compared with Other Neolithic Cultures in the Upper and Middle Part of the Dniester Basin. Selected Issues. State of the Research. *Analecta Archaeologica Rzesoviensia* 2: 23-46.
- Penner S.
1998 *Schliemanns Schachtgräber und der europäische Nordosten*. Bonn.
- Petrenko V.G.
1967 *Pravoberezhie Srednego Pridneprov'ya w V-III vv do n.e.* Moskva.
2006 *Krasnoznamen'skiy mogilnik. Elitnye kurgany ranneskifskoy epokhi na Severnom Kavkaze*. Moskva – Berlin – Bordeaux.
- Petrougne V.F.
1995 Petrographical-lithological characteristics of stone materials from Late-Tripolye cemeteries of the Sofievka type. In: A. Koško (Ed.) *Cemeteries of the Sofievka type: 2950–2750 BC*. *BPS* 3: 190-199.
- Piggot S.
1983 *The Earliest Wheeled Transport, from the Atlantic Coast to the Caspian Sea*. London.
- Platar
2004 *Platar. Kolektsiya predmetiv starovinu rodin Platonovikh i Tarut*. Kiev.
- Plezia M.
1964 Hypanis. In: *Słownik starożytności słowiańskich* II: 234-234. Wrocław – Warszawa – Kraków.
- Podbielkowski Z.
1991 *Geografia roślin*. Warszawa.
- Polin S.V., Tupchienko N.P., Nikolova A.V.
1992 *Kurgany verkhov'iev Inhul'tsa (kurgany u ss. Uspenka i Golovkovka)*. Kiev (preprint).

- 1994 *Kurgany verkhoviev Inhultsa (kurgany u ss. Golovkovka, Zvenigorodka i Protopopovka)*. Kiev (preprint).
- Postgate N.
2005 *Early Mesopotamia. Society and Economy at the Dawn of History*. Glasgow.
- Potts D.T.
1997 *Mesopotamian Civilization. The Material Foundation*. London.
- Pozikhovskiy O., Samolyuk V.
2007 Doslidzhennya gruntovogo mogilnika dobi eneolitu - rannoi bronzi v m. ostrog. In: *Arkheologichni doslidzhennya v Ukraini 2005-2007 rr.* 310-313. Kiev - Zaporizhya - Dike Pole.
- Pradzieje Wielkopolski
1999 *Pradzieje Wielkopolski*. Przewodnik po wystawie. Poznań.
- Pryakhin A.D.
1995 Dono-Donetskaya step i lesostep v epokhu bronzy (nekotorye itogi i perspektivy issledovaniy). In: *Materialy Ukrainsko-Rossiiskogo polevogo arkheologicheskogo seminaru "Epokha bronzy Dono-Donetskogo regiona"*, 6-10. Luhansk.
1996 *Mosolovskoe poselenie metallurgov-liteyshchikov epokhi pozdnei bronzy*. Voronezh.
- Pryakhin A.D., Otroshchenko V.V., Savrasov A.S., Brovender Y.M.
2000 Osnovnye itogi raboty ukrainsko-rossiiskoy arkheologicheskoy ekspeditsii po izucheniu marmyshskogo rudoproiavlenia v Donbasse. In: *Materialy mezhdunarodnoy nauchnoy konferentsii "Srubnaya kulturno-istoricheskaya obshchnost v sisteme drevnostei epokhi bronzy evrazijskoy stepi i lesostepi"*, 99-104. Voronezh.
2003 Nekotorye rezultaty ukrainsko-rossiiskoy ekspeditsii na Marmyshskom rudoproiavlenii Luganskoi oblasti Ukrainy. In: Dono-Donetskiy region v epokhu bronzy. *AVL 17*: 102-122. Voronezh.
- Purowski T.
2003 *Cmentarzysko kultury luzycckiej w Ożumiechu na północnym Mazowszu*. Warszawa.
- Pustovalov S.Z.
1992 *Vozrostnaya polovaya i sotsialnaya kharakteristika katakombnogo naseleniya severnogo Prichernomor'ya*. Kiev.
1994 Economy and social organization of Pontic steppe – forest-steppe pastoral populations: 2750–2000 BC (Catacomb Culture). In: A. Koško (Ed.) *Nomadism and Pastoralism in the Circle of Baltic-Pontic Early Agrarian Cultures: 5000–1650 BC*. *BPS 2*: 86-134.
1999 Molochanske sviytylysche. In: *Problemy archeologii Podniprov'iy*, w .2, 104-118. Dnipropetrovsk.
2005 *Sotsialnyi lad katakombnogo suspilstva Pivnichnogo Prichernomor'ya*. Kiev.

- 2008 Yamno-katakombnyye transportnyje sredstva i kriterii vydeleniya boevykh kolesnits epokhib bronzы. In: *Proiskhozdenie i Rasprostranenie Kolesnichestva*, 100-112. Luhansk.
- Pydyn A.
1999 *Exchange and Cultural Interactions. A Study of Long-Distance Trade and Cross-Cultural Contacts in the Late Bronze Age and Early Iron Age in Central and Eastern Europe*. Oxford.
- Quillfeldt von, I.
1995 *Die Vollgriffschwerter in Süddeutschland*. Stuttgart.
- Ralska-Jasiewiczowa M., Latałowa M., Wasylkowa K., Tobolski K., Madeyska E., Wright H.E. Jr., Turner Ch. (Eds)
2004 *Late Glacial and Holocene history of vegetation in Poland based on isopollen maps*. Kraków.
- Ramomski A.
1998 Budowa geologiczna. In: *Encyklopedia Geograficzna Świata. Europa*, 23-32. Kraków.
- Rassamakin Yu.Ya.
1992 Do problemy vyvchennya kurgannykh sporud. *Arkheologiya* 4: 121-137.
1996 The Main Directions of the Development of Early Pastoral Societies of Northern Pontic Zone: 4500–2450 BC (Pre-Yamnaya cultures and Yamnaya culture). In: A. Koško (Ed.) *Nomadism and Pastoralism in the Circle of Baltic-Pontic Early Agrarian Cultures: 5000–1650 BC*. BPS 2: 29-70.
2004 Die nordpontische Steppe in der Kupferzeit. Gräber aus der Mitte des 5. Jts. bis Ende des 4. Jts. v. Chr. *Archäologie in Eurasien* 17. Mainz am Rhein.
- Rąkowski G.
2005 *Przewodnik po Ukrainie Zachodniej. Część I. Wołyń*. Pruszków.
- Reinecke P.
1926 Ein neuer Goldfund aus Bulgarien. *Germania* 9: 50-54.
- Reiter K.
1997 Die Metalle im Alten Orient unter besonderer Berücksichtigung altbabylonischer Quellen. *Alter Orient und Altes Testament* 249. Berlin.
- Renfrew A.C.
1984 *Approaches to Social Archaeology*. Edinburgh
1998 Words of Minos: the Minoan Contribution to Mycenaean Greek and the Linguistic Geography of the Bronze Age Aegean. *Cambridge Archeological Journal* 8: 239-264.
- Renfrew C., Bahn P.
2002 *Archeologia. Teorie. Metody. Praktyka*. Warszawa.

Rezepkin A.D.

- 1991 Kurgan 31 mogilnika Klady. Problemy genezisa i khronologii maykopskoy kultury. In: *Drevniye kultury Prikubanya*, 167-197. Leningrad.

Rimantienė R.

- 1980 *Šventoji. Pamarių – kult(u)ros – gyvenvietės*. Vilnius.
1996 *Akmens amžius Lietuvoje*. Vilnius.

Ritsvet L.

- 2008 Legal and Archaeological Territories of the Second Millennium BC in Northern Mesopotamia. *Antiquity* 82: 585-599.

Robinson C., Baczyńska B., Polańska M.

- 2004 The Origins of Faience in Poland. *Sprawozdania Archeologiczne* 56: 79-154. Kraków.

Rola J.

- 2006 Pradolina Noteci na szlaku kontaktów społeczności neolitu I wczesnej epoki brązu. In: H. Machajewski, J. Rola (Eds) *Pradolina Noteci na tle pradziejowych i wczesnośredniowiecznych szlaków handlowych*, 107-120. Poznań.
2008 Neolityczne szlaki i drogi nadnotecka. In: J. Bednarczyk, J. Czebreszuk, P. Makarewicz, M. Szmyt (Eds) *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Kośko w 60. rocznicę urodzin*, 461-468. Poznań.

Romanchuk O.

- 2005 Materiały do archeologicznej karty Berezniwshchyny doby brązy. In: G. Okhrimenko (Ed.) *Arkheologichna spadshchyna Jana Fitzke*, 419-434. Lutsk.

Roth M.

- 1997 *Law Collections from Mesopotamia and Asia Minor*. Atlanta.

Rozdobudko M.

- 2002 Zaseleńna terytorii ta rozvytok poselenskykh struktur mezhyrichya Dnipra – Trubezha – Supoyu za archeologicznymy danymy. *Naukovi zapysky z Ukrainkoï istorii* 13: 10-26. Pereyaslav-Khmelnytsky.

Rozdobudko M.V., Yurchenko O.V.

- 2005 Znakhidky kuliastykh amfor na livoberezhyyi Serednyoho Dnipra. In: *Archeologichni doslidzhennya v Ukraini 2003–2004 rr.*, 276-279. Zaporizhyya.

Rozwadowski J.

- 1948 *Studia nad nazwami wód słowiańskich*. Kraków.

Rudynsky M.

- 1928 Archeologichni zbirky Poltavskoho muzeyu. In: *Zbirnyk prysvyachenyi 35-rychy muzeyu*, Vol. I, 29-62. Poltava.

- Rutter J.
1975 Ceramic Evidence for Northern Intruders in Southern Greece at the Beginning of the Late Helladic III C Period. *AJA* 79: 17-32.
- Rybicka M.
2004 *Kultura pucharów lejkowatych na Pojezierzu Gostynińskim. Chronologia. Osadnictwo. Gospodarka. Łęczyca.*
- de Ryck I., Adriaens A., Adams F.
2005 An Overview of Mesopotamian Bronze Metallurgy During the 3rd Millennium BC. *JCH* 6: 261-268.
- Ryndina N.V.
1971 *Drevneishee metalloobrabatyvayushchee proizvodstvo Vostochnoy Evropy.* Moskva.
1980 Metall v kulturach schnurovoy keramiki ukraińskiego Predkarpatya, Podolii i Volynii. *SA* 3: 24-42.
1993 *Drevneyshee metalloobrabatyvayushchee proizvodstvo Vostochnoy Evropy (istoki razvitiya i razvitiya v neolite i eneolite).* Moskva.
1998 *Drevneyshee metalloobrabatyvayushchee proizvodstvo Vostochnoy Evropy.* Moskva.
- Rzepecki S.
2003 Osadnictwo społeczności kultury pucharów lejkowatych. In: L. Czerniak (Ed.) *Badania archeologiczne na terenie odkrywki "Szczerców" Kopalni Węgla Brunatnego "Belchatów" S.A.* 3, 245-286. Poznań.
2004 *Społeczności środkowoneolitycznej kultury pucharów lejkowatych na Kujawach.* Poznań.
- Sadowska-Topór J.
1999 Starożytne drogi w dolinie rzeki Dzierzgoń w świetle badań archeologicznych. *Seria Adalbertus.* Tom 4. Warszawa.
- Safronov V.A.
1968 Datirovka Borodinskogo klada. *Problemy Arkheologii* 1: 75-128.
- Sahlins M.
1972 *Stone Age Economics.* Chicago.
1992 Socjologia wymiany w społeczeństwach pierwotnych. In: M. Kempny, J. Szmatka (eds) *Współczesne teorie wymiany społecznej. Zbiór tekstów*, 131-172. Warszawa.
- Sahoglu V.
2005 The Anatolian Trade Network and the Izmir Region During the Early Bronze Age, *OJA* 24 (4): 339-361.
- Salles J.-F.
2001 Byblos, osiem tysięcy lat historii. In: A. Lemaire (Ed.) *Świat Biblii*, 212-215. Wrocław.

Sandars N.

1963 Later Aegean bronze swords. *AJA* 67: 117-153.

1978 *The Sea Peoples*. London.

1983 North and South at the End of Mycenaean Age: An Aspects of an Old Problem. *OJA* 2: 43-68.

Sangmeister E.

1972 Social-ökonomische Aspekte der Glockenbecherkultur. *Homo: Zeitschrift für die vergleichende Forschung am Menschen* Bd. 23: 188-203.

Sanzharov S.N.

2001 *Katakombnye kultury Severo-Vostochnogo Priazovya*. Luhansk.

Sarnowska W.

1975 *Kultura unietycka w Polsce*. Tom II. Wrocław – Warszawa – Kraków – Gdańsk.

Sava E.

2002 *Die Bestattungen der Naua-Kultur. Ein Beitrag zur Erforschung spätbronzezeitlicher Bestattungsriten zwischen Dneestr und Westkarpaten*. Kiel.

Savkevich S.S.

1970 *Yantar*. Sankt Petersburg.

Savrasov A.S.

2006 K otsenke novogo etapa v izuchenii metalloproizvodstva katakombnoy kulturno-istoricheskoy oblasti (istoria issledovania, publikatsii). *AVL* 20: 97-107.

Sawicki L.

1920 Groby megalityczne w Potyrach w pow. płońskim Z. Warszawskiej. *Wiadomości Archeologiczne* 5: 125-241.

Schickler H.

1974 Review of Hänsel 1968. *Fundberichte aus Baden-Württemberg* 1: 705-734.

Schovsbo P.O.

1983 A Neolithic Vehicle from Klosterlund, Central Jutland. *Journal of Danish Archaeology* 2: 60-70.

Selz G.J.

1991 Elam and Sumer – Skizze einer Nachbarschaft nach inschriftlichen Quellen der vorsargonischen Zeit. In: L. de Meyer, H. Gasche (Eds) *Mesopotamie et Elam. Actes de la XXXVIeme Rencontre Assyriologique Internationale, Gand, 10-14 Juillet 1989*, 23-26. Ghent.

Serdyukova I.

1993 Novye pamyatniki srednedneprovskoy kultury v Potrubezhie. In: *Arkheologichni doslidzhennya v Ukraini 1991 roku*, 114-115. Lutsk.

- 1994 Katakombnye poselenia ukrainskogo Podneprov'ia. In: *Donestkiy arkheologicheskii sbornik* 5: 169-172.
- 1996 Contribution to the origin of the Bronze Age In the Middle Dnieper Region. In: A. Koško (Ed.) *Eastern Exodus of the Globular Amphora People: 2950-2350 BC. BPS* 4: 133-155.
- Seweryn, T.
1930 *Parzenice góralskie*. Kraków.
- Shaposhnikova O.G., Fomenko V.N., Balushkin A.M.
1977 Kurgannaya gruppa bliz s. Starogorozhena. In: *Drevnosti Poinhulya*, 99-145. Kiev.
- Shaposhnikova O.G., Fomenko V.N., Dovzhenko N.D.
1986 Yamnaya kulturno-istorichyeskaya oblast (yuahnobugskiy variant). *Svod Arkheologicheskikh Istochnikov* V1-3. Kiev.
- Sharafutdinova I.N.
1980 Ornamentirovannye topory-molotki iz katakomnikh pogrebenni na Ingule. *Arkheologia* 33: 60-70.
- Shelomentsev-Terskiy S.V.
1996 Settlement of Globular Amphora Culture in Peresopnitsa, the Volhynia Region (Ukraine). In: A. Koško (Ed.) *Eastern Exodus of the Globular Amphora People: 2950 – 2350 BC. BPS* 4: 70-78.
- Sherratt A.G.
1981 Plough and Pastoralism: Aspects of the Secondary Products Revolution In: I. Hodder, G. Isaac, N. Hammond (Eds) *Pattern of the Past: Studies in Honour of David Clarke*, 261-305. Cambridge.
1987 Warriors and Traders: Bronze Age Chiefdoms in Central Europe. In: B. Cunliffe (Ed.) *Origins – The Roots of Europe Civilisation*, 54-66. London.
1993 What Would a Bronze Age World System Look Like? Relations Between Temperate Europe and the Mediterranean in Late Prehistory. *Journal of European Archaeology* 1: 1-57.
1994 The Emergence of Élites: Earlier Bronze Age Europe, 2500–1300 BC. In: B. Cunliffe (Ed.) *The Oxford Illustrated Prehistory of Europe*, 244-276. Oxford – New York.
1996 Why Wessex? The Avon Route and River Transport in Later British Prehistory. *OJA* 15: 211-235.
- Sherratt A.G., Sherratt, E.S.
1991 From Luxuries to Commodities: the Nature of Mediterranean Bronze Age Trading System. In: N.H. Gale (Ed.) *Bronze Age Trade in the Mediterranean*, 351-386. Göteborg.

Sherratt E.S., Taylor T.

- 1989 Metal Vessels in Bronze Age Europe and the Context of Vulchetrun. In: J.P.P. Best, N.M.W. de Vries (Eds) *Thracians and Mycenaean*, 106-134. Leiden.

Shilov Y.A.

- 1975 Zalishki voziv u kurganakh yamnoy kultury Nizhnego Podnieprovya. *Arkheologia* 17: 53-61.

Shmagliy N.M.

- 1966 Gorodsko-volinskiyi varyiant piznotripolskoy kultury. *Arkheologia* 20: 15-37.

Shmidt E.A.

- 1992 Mogilnik kultury kulyastsikh amfor poblizu Smolenska u verhiyakh Dni-pira. *Arkheologiya* 2: 120-124.

Shramko B.A.

- 1987 *Belskoe gorodishche skifskoi epokhi (gorod Gelon)*. Kiev.
2002 Novaya liteynaia formochka s Belskogo gorodischa: k istorii vooryzhenia u plemen Skifii. *RA* 1: 163-166.

Shumova V.O.

- 2005 Pro obryadovo-pokhoyalniy burshtin z nekropoliyu na Pivdennom Buzi. In: *Na poshanu Sofii Stanislavivni Berezanskoy*, 231-234. Kiev.

Shylyk K.K.

- 1979 Geograficheskie aspekty soobschenia Herodota o gorkom istochnike na Gipanise. In: *Problemy antichnoy istorii i kultury* 2: 450-456. Erevan.
1981 Vliyanie prirodnykh usloviy na vybor trass drevnikh transportnykh putey. In: *Vzaimodeystvie obschestva i prirody v processe obschestvennoy evolucii*, 178-187. Moskva.

Shylov Ju.O.

- 1977 Zalyshky voziv u kurganakh yamnoy kultury Nyzhnyogo Podniprovya. *Arkheologia* 17: 53-61.

Sidarovich V.

- 2005 Vypadkovyia znahodki kamennaga i bronzovaga vjakoju. In: *Muzejny vesnik* (2003) 2: 31-35. Minsk.

Skoryi S.A.

- 1990 *Kurhan Perepyatykha*. Kiev.

Słownik

- 1880 *Słownik geograficzny Królestwa Polskiego*. Tomy 1-15 (1880-1902). Warszawa.

Smirnov V.I.

- 1947 Govyadinovskiy mogilnik. *SA* 47: 211-220.

Sobieraj J.

- 2004 Kultura ceramiki sznurowej a początki epoki brązu pomiędzy Dolną Wisłą a Niemnem. In: M. Hoffmann, J. Sobieraj (Eds) Człowiek a środowisko w epoce brązu i wczesnej epoce żelaza u południowo-wschodnich pobrzeży Bałtyku. *Pruthenia Antiqua* 1: 71-80.

Sorokina S.

- 2004 Kamyani navershya bulav iz kolektsii NMIU. In: *Natsionalnyi muzey istorii Ukrainy: postup u tretye tysyacholittya*, 155-168. Kiev.

Souyouudzoglou-Haywood Ch.

- 1999 *The Ionian Islands in the Bronze Age and Early Iron Age 3000-800 BC*. Liverpool.

Srebrodolsky B.Y.

- 1988 *Mir yantarya*. Kiev.

Staschuk M.F., Suprychev V.A., Khitraia M.S.

- 1964 *Mineralogia, geokhimia i uslovnia formirovania donnykh otlozheniy Sivasha*. Kiev.

Steinkeller P.

- 1987 The Administrative and Economic Organization of the Ur III State: The Core and the Periphery. In: McG. Gibson, R.D. Biggs (Eds) *The Organization of Power. Aspects of Bureaucracy in the Ancient Near East*, 19-42. Chicago.

Stępień M.

- 1996 *Kodeks Hammurabiego*. Warszawa.
2006 *Ensi w czasach III dynastii z Ur: aspekty ekonomiczne i administracyjne pozycji namiestnika prowincji w świetle archiwum z Ummu*. Warszawa.

Stepnik T.

- 2009 Analiza dendrologiczna konstrukcji przeprowożnych z okresu neolitu i brązu w Żuławce Małej. In: J. Rola (Ed.) *Późnoneolityczny węzeł komunikacyjny w strefie środkowej Noteci (Żuławka Mała, gmina Wyrzysk)*, 119-125. Poznań.

Stillman N., Tallis N.

- 1984 *Armies of the Ancient Near East, 3000-539 BC*. Worthing.

Stjernquist B.

- 1966 *Models of Commercial Diffusion in Prehistoric Times*. Lund.

Stol M.

- 2004 Wirtschaft und Gesellschaft In Altbabylonischer Zeit. Mesopotamien. Die altbabylonische Zeit. *Orbis Biblicus et Orientalis* 160/4, 643-978. Göttingen.

Subbotin L.V., Cherniakov, I.T.

- 1982 Novotroyanovskiy skarb ta pyttannya obminu metalom za doby piznioy bronzy. *Arkheologia* 39: 5-23.

Sujkowski A.

1918 *Geografia ziem dawnej Polski*. Warszawa.

Sulimirski T.

1931 *Kultura wysocka*. Kraków.

1936a *Scytowie na Zachodnim Podolu*. Lviv.

1936b Zagadnienie ekspansji kultury łużyckiej na Ukrainę. *Wiadomości Archeologiczne* 14: 40-54.

1955 *Polska przedhistoryczna, cz. I, Od epoki lodowej do około 2000 przed Chr.* Londyn.

1957–1959 *Polska przedhistoryczna, cz. II, Drugie tysiąclecie przed Chr.* Londyn.

1964 Barrow-Grave 6 at Komarów. *University of London Institute of Archaeology Bulletin* 4: 171-188.

1968 *Corded Ware and Globular Amphorae North-East of the Carpathians*. London.

1971 Aegean Trade with Eastern Europe and Its Consequences. *Mélanges offerts a André Varagnac, 707-728*. Paris.

Suprunenko A.B.

1994 *Kurgany Nizhnego Povorskliia*. Moskva – Poltava.

Sveshnikov I.K.

1964 Poselenie kultury shnurovoy keramiki u s. Gorodok Rovenskoj oblasti. *KSIA* 97: 127-134.

1967 Kultura komarowska. *Archeologia Polski* 12: 39-107.

1968 Bogatyje pogrebeniia komarovskoy kultury u s. Ivanya rovenskoj oblasti. *SA* 2: 159-168.

1974 *Istoia naselenia Pieredkarpattia, Podillia i Volini v kinci III – na pochatku II tisiacholittia do nashoj eri*. Kiev.

1983 Kultura sharovidnykh amfor. In: *Svod archeologicheskikh istochnikov*, 1-27. Moskva.

1985 Podkarpackaya kultura. Pothapskaya gruppa na Podoli. Gorodoysko-zdabickaya kultura na Volyni. In: *Arkheologia Ukrainskoy SSR*. Kiev, 375-384.

Sveshnikov I.K., Nikolchenko Y.M.

1982 *Dovidnyk z arkheologii Ukrainy. Rovenska oblast*. Kiev.

Szafer W.

1950 *Epoka lodowa*. Kraków.

Szafer W., Pawłowski B.

1977 Geobotaniczny podział Polski. In: W. Szafer, K. Zarzycki (Eds) *Szata roślinna Polski*. Tom II: mapa (wydanie trzecie, pierwsza edycja w 1972). Warszawa.

Szanter Z.

- 1997 Jeszcze o osadnictwie zza południowej granicy w Beskidzie Niskim i Sądeckim. In: A.A. Zięba (Ed.) *Łemkowie i lemkoznawstwo w Polsce*. Tom V, 81-202. Kraków.

Szeląg D.

- 2007 Historia Mezopotamii w czasach III dynastii z Ur. In: D. Szeląg (Ed.) *Historia i kultura państwa III dynastii z Ur*, 1-16. Warszawa.

Szmyt M.

- 1996 *Spoleczności kultury amfor kulistych na Kujawach*. Poznań.
- 1999a Between West and East. People of the Globular Amphora Culture in Eastern Europe: 2950–2350 BC. *BPS* 8.
- 1999b Tripolye Traits in the Material of Central (Polish) Group of the Globular Amphora Culture – a Radiocarbon Perspective. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper: 3150–1850 BC*. *BPS* 7: 211-220.
- 2000 In the Far Reaches of Two Worlds. On the study of contacts between the societies of the Globular Amphora and Yamnaya cultures. In: S. Kadrow (Ed.) *A Turning of Ages/Im Wandel der Zeiten. Jubilee Book Dedicated to Professor Jan Machnik on His 70th Anniversary*, 443-466. Kraków.
- 2001 Spoleczności kultury amfor kulistych w Europie Wschodniej. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. przed Chr.* *Archaeologia Bimaris* 2: 167-193. Poznań.
- 2002a Kugelamphoren-Gemeinschaften in Mittel- und Osteuropa: Siedlungsstrukturen und soziale Fragen. In: J. Müller (Hrsg.) *Vom Endneolithikum zur Frühbronzezeit: Muster sozialen Wandels? (Tagung Bamberg 14.-16. Juni 2001)*. *Universitätsforschungen zur Prähistorischen Archäologie* 90, 195-234. Bonn.
- 2002b Ze studiów nad kontaktami społeczeństw środkowoeuropejskich i stepowych. Relacje ludności kultury amfor kulistych i kultury jamowej. In: *Dre-vnejshe obshchnosti zemledelcev i skotovodov Severnogo Prichernomor'ya (IV tys. do n.e. – IV v. n.e.)*, 111-114. Tiraspol.
- 2003 Ein Blick auf die polykulturelle Peripherien. Bemerkungen zur Verbreitung der Kugelamphorenkultur. *Germania* 81: 399-440.
- 2004a Iz issledovaniy kontaktov mezhdu kulturami sharovidnykh amfor i pozdnego Tripolya. *Stratum plus* 2: 246-259.
- 2004b Wędrowki bliskie i dalekie. Ze studiów nad organizacją społeczną i gospodarką ludności kultury amfor kulistych na terenie Europy Środkowej i Wschodniej. In: A. Koško, M. Szmyt (Eds) *Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru (neolit, eneolit, epoka brązu)*. *Archaeologia Bimaris* 3: 117-136. Poznań.

- 2008 Podobnie choć inaczej? Ze studiów nad zróżnicowaniem reguł socjoorganizacyjnych ugrupowań kultury amfor kulistych. In: J. Bednarczyk, J. Czebreszuk, P. Makarowicz, M. Szmyt (Eds), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 495-527. Poznań.

Szuchiewicz W.

- 1902 *Huculszczyzna*, T.I. Lwów.

Ścibior J.

- 1991 Kultura amfor kulistych w środkowowschodniej Polsce. Zarys problematyki. In: J. Gurba (Ed.) *Schylek neolitu i wczesna epoka brązu w Polsce środkowowschodniej*, 47-65. Lublin.
- 1994 Kultury późnego Tripolya i voronkovidnych sosudov na Volini. *Arkheologiya* 4: 30-47.

Śliwa J.

- 1997 *Sztuka i archeologia starożytnego Wschodu*. Warszawa.

Ślusarska K.

- 2000 *Gordijewska odnoga w systemie szlaków handlowych w 2 połowie II tysiąclecia BC*. Poznań. (MA thesis).
- 2003a Problem “wschodnioeuropejskiej korekty” w systemie szlaków bursztynowych w świetle odkryć w strefie północnego Nadczarnomorza (2 poł. II tys. BC). In: M. Fudziński, H. Paner (Eds) *Od epoki kamienia do okresu rzymskiego. XIII Sesja Pomoroznawcza*. Tom 1, 125-131. Gdańsk.
- 2003b Paciorki bursztynowe z Gordijevki. *Vita Antiqua* 5-6: 76-84. Kiev.
- 2003c Radiocarbon chronology of the “Hordeevka type”. In: A. Koško (Ed) The foundations of radiocarbon chronology of cultures between the Vistula and Dnieper: 4000–1000BC. *BPS* 12: 365-381.
- 2006 Funeral Rites of the Catacomb Community: 2800–1900 BC. Ritual, Thanatology and Geographical Origins. *BPS* 13.
- 2007 Some Remarks of the Possibility That There Existed an ‘Eastern Branch’ in the System of Amber Routes in the Late Bronze and Early Iron Ages. In: Galanaki J, Tomas H., Galanakis Y, Laffineur R. (Eds) Between the Aegean and Baltic Seas. Prehistory Across Borders, *Aegeum* 27: 371-375.

Takhtajan A.

- 1986 *Floristic regions of the world*. Los Angeles – London.

Tallgren A.M.

- 1925 *Zur Archäologie Eestis*. Dorpat.
- 1926 *La Pontide préscythique après l'introduction des métaux*. Helsinki.

Tanatar I.I.

- 1931 *Mestorozhdeniya poleznykh iskopaemykh Dnepropetrovia*. Dnipropetrovsk.

Taracha P.

- 2002 The maces in the Ancient Near East and Egypt according to archaeological sources. In: A. Koško (Ed.) Fluted maces in the system of long-distance exchange trails of the Bronze Age: 2350–800 BC. *BPS* 11: 12-21.

Taras H.

- 1997 Krzemieniarstwo kultury trzcinieckiej na wyżynach Wschodniomałopolskiej i Zachodniowołyńskiej oraz na zachodnim Polesiu. In: J. Lech, D. Piotrowska (Eds) *Z badań nad krzemieniarstwem epoki brązu i wczesnej epoki żelaza*, 163-183. Warszawa.
- 2007 The Directions of the Lublin Region Connections in the Older Bronze Period. In: J. Baron, I. Lasak (Eds) Long Distance Trade in the Bronze Age and Early Iron Age, *Studia Archeologiczne* XL, 251-269, Wrocław.

Tatarinov S.I.

- 1977 O gorno-metallurgicheskome tsentre epokhi bronzy v Donbasse. *SA* 4: 192-207.
- 2003 *Drevnie gornyaki – metallurgi Donbassa*. Slavyansk.
- 2005 Mineralno-syrievaya baza Donetskogo gorno-metallurgicheskogo tsentra epokhi bronzy v Vostochnoi Ukraine. In: *Materiály II-go mizhnarodnogo Marmyskoho polyovoho seminaru “problemy girnychoi arkheologii”*, 272-278. Alchevsk.

Telegin D.J.

- 1972 Slidy mohylnykaserednyodniprovskoy kultury nar. Teterevi. In: *Archeologichni doslidzhennya v Ukraini v 1969 r.* 4: 96-98. Kiev.
- 1999 Dniepr jako pogranicze zachodnioeuropejskich (bałkańsko-centralnoeuropejskich) i wschodnioeuropejskich wspólnot etniczno-kulturowych w neolicie i eneolicie (V-III tysiąclecie p.n.e.). *Folia Praehistorica Posnaniensia* 9: 9-40.

Telegin D.Y., Kruts V.A

- 1970 Ostatki mogilnika srednedneprovskoy kultury u s. Lyubecha na Dnepre. *SA* 4: 178-180.

Telegin D.J., Nechitaylo A.L., Potekhina I.D., Panchenko J.V.

- 2001 *Srednestogovskaya i novodanilovskaya kultury eneolita azovo-chernomorskogo regiona*. Luhansk.

Telegin D.J., Potekhina I.D.

- 1998 *Kamyani bogy midnogo viku Ukrainy*. Kiev.

Telegin D.J., Pustovalov S.Z., Kovalyukh

- 2003 Relative and absolute chronology of Yamnaya and Catacomb monuments the issue of co-existence. In: A. Koško, V.I. Klochko (Eds) Foundations of radiocarbon chronology of cultures between the Vistula and Dnieper: 4000–1000 BC. *BPS* 12: 132-184.

Terzan B., Mihovilic K., Hänsel B.

1999 *Eine protourbane Siedlung der älteren Bronzezeit im istrischen Karst*. Berlin.

Teslenko D.L.

2007 Ob evolutsii megaliticheskikh sooruzheniy v Severnom Prichernomore i Priazove (eneolit – ranniy bronzoviy vek). In: *Materiali ta doslidzhen-nya z arkheologii skhidnoy Ukraini. Vid neolitu do kimmeriytsev* 7, 76-85. Luhansk.

Thissen L.

1993 New Insights in Balkan-Anatolian Connections in the Late Chalcolitic: Old Evidence from the Turkish Black Sea Littoral. *AnSt* 43: 207-237.

Tkach V.

2007 Pamyatky doby rannoyi bronzy v seredniy techii r. Ikvy (kultury shnurovoy keramiki). In: Okhrimenko H., Sklyarenko N., Kalishchuk O., Tkach V., Romanchuk O. (Eds) *Oleksandr Tsynkalovsky ta praistoria Volyni*, 571-709. Lutsk.

Tobolski K.

1976 Przemiany klimatyczno-ekologiczne w okresie czwartorzędu a problem zmian we florze. *Phytocoenosis* 5(3/4): 187-191.

Toshev G.N.

1991 Zapadniy areal pamyatnikov katakombnoy kultury. In: *Katakombnye kul-tury Severnogo Prichernomorya*, 85-100. Kiev.

Trachsel M.

2004 Untersuchungen zur relativen und absoluten Chronologie der Hallstattzeit. *Universitätsforschungen zur prähistorischen Archäologie* 104. Bonn.

Tryjanowski P., Winiecki A.

2003 Ptaki jako wskaźnik stepowienia Wielkopolski. In: J. Banaszak (Ed.) *Ste-powienie Wielkopolski - pół wieku później*, 175-184. Bydgoszcz.

Tsalkin V.I.

1960 Domashnie i dikiye zhyvotnye Severnogo Prichernomorya v epokhu rannego zeleza. *MIA* 53: 7-109.

1966 *Drevnee zhyvotnovodstvo plemen Vostochnoy Evropy i Sredney Azii*. Moskva.

Tsetskhladze G.R.

1997 Argonautica, Colchis and the Black Sea: Myth, Reality and Modern Scholar-hip. *Thracia Pontica* VI.1: 337-342, Sozopol.

1998 Greek Colonisation of the Black Sea Area: Stages, Models and Native Po-pulation. In: G.R. Tsetskhladze (Ed.) *The Greek Colonisation of the Black Sea Area. Historical Interpretation of Archaeology*, 9-68. Stuttgart.

Tuckij W.

- 2005 Złoża bursztynu na Ukrainie i ich wykorzystanie. In: B. Kosmowska-Ceranowicz, W. Gierłowski (Eds) *Bursztyn. Poglądy, opinie*, 36-39. Gdańsk.

Tutskij W., Stepanjuk L.

- 1999 Geologie und Mineralogie des Bernsteins von Klessow, Ukraine. In: B. Kosmowska-Ceranowicz, H. Paner (Eds) *Investigations into Amber*, 53-60. Gdańsk.

Tyszkiewicz L.

- 1994 *Słowianie w historiografii wczesnego średniowiecza od połowy VI do połowy VII wieku*. Wrocław.

Vagnetti L.

- 1993 Mycenaean Pottery in Italy: Fifty Year of Study. In: P. Zerner, C. Zerner, J. Winder (Eds) *Wace and Blegen. Pottery as Evidence for Trade in the Aegean Bronze Age 1939-1989*, 143-154. Amsterdam.

Valde-Nowak P.

- 1988 *Etapy i strefy zasiedlenia Karpat polskich w neolicie i na początku epoki brązu*. Wrocław – Warszawa – Kraków – Gdańsk – Łódź.

Vandkilde H.

- 1996 *From Stone to Bronze. The Metalwork of the Late Neolithic and Earliest Bronze Age in Denmark*. Aarhus.
- 2001 Beaker Representation in the Danish late Neolithic. In: F. Nicolis (Ed.) *Bell Beakers today/ Pottery, people, culture, symbols in prehistoric Europe*. Proceedings of the International Colloquium. Riva del Garda (Trento, Italy). 11-16 May 1998. Vol. I. Provincia Autonoma di Trento. Servizio Beni Culturali. Ufficio Beni Archeologici. 333-360.

Vangorodska O.

- 1985 Viroby z yantariu w khulturakh eneolita i bronzы Ukrainy. *Arkheologia* 50: 44-49.

Vankina L.V.

- 1970 *Torfjanikovaya stoyanka Sarnate*. Riga.

Vasilev I.B., Kuznetsov P.F., Semenova A.P.

- 1995 *Pamyatniki Semenovskovo typu, in Drevnie indoiranskie kultury Volga-Urala*. Samara.

Vassileva M.

- 1998 Greek Ideas of the North and the East: Mastering the Black Sea Area. In: G.R. Tsetskhladze (Ed.) *The Greek Colonisation of the Black Sea Area*, 69-77. Stuttgart.

Veenhof K.R.

1995 Kanesh: An Assyrian Colony in Anatolia. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 859-871. London – New York.

Veenhof K.R., Eidem J.

2008 Mesopotamia. The Old Assyrian Period. *Orbis Biblicus et Orientalis* 160/5. Göttingen.

Velušček A.

2001 Ein Rad mit Achse aus dem Laibacher Moor. In: J. Köninger, M. Mainberger, H. Schlichterherle, M. Vosteen (Eds) *Schleife, Schlitten, Rad und Wagen. Zur Frage früher Transportmittel nördlich der Alpen. Hemmenhofener Skripte*: 38-42. Hemmenhofen.

Venedikov I.

1987 *The Vulchitrun Treasure*. Sofia.

Venedikov I., Gerasimov T.

1973 *Trakiyskoto Iskustvo*. Sofia.

Vianello A.

2005 Late Bronze Age Mycenaean and Italic Products in the West Mediterranean. A social and economical analysis. *BAR IS* 1439.

Videiko M.J.

1995 Archaeological Characteristics of the Sofievka Type Cemeteries. In: A. Koško (Ed.) *Cemeteries of the Sofievka type 2950–2750 BC*. *BPS* 3: 15-134.

1999 Radiocarbon Dating Chronology of the Late Tripolye Culture. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper in 3150–1850 BC*. *BPS* 7: 34-71.

2000 Tripolye and the Cultures of Central Europe: Facts and Character of Interactions 4200–2750 BC. In: A. Koško (Ed.) *The Western Border Area of the Tripolye Culture*. *BPS* 9: 13-68.

2001 Tripolye i neoliticheskiye obshchestva na Srednem Dnepre: voprosy vzaimodeystviya. In: J. Czebreszuk, M. Kryvalcevič, P. Makarowicz (Eds) *Od neolityzacji do początków epoki brązu. Przemiany kulturowe w międzyrzeczu Odry i Dniepru między VI i II tys. BC*. *Archaeologia Bimaris* 2: 215-230. Poznań.

2003 Radiocarbon Chronology of Settlements of BII and CI Stages of the Tripolye Culture at the Middle Dnieper. In: A. Koško (Ed.) *The Foundations of Radiocarbon Chronology of Cultures between the Vistula and Dnieper*. *BPS* 12: 7-21.

2008 *Ukraina: ot Tripolia do Antov*. Kiev.

Wace A.J.B.

1960 A Mycenaean Mystery. *Archaeology* 13: 40-44.

Walter H.

1968 *Die Vegetation der Erde. Band II: Die gemäßigten und arktischen Zonen.* Jena.

Warren P., Hankey V.

1989 *Aegean Bronze Age Chronology.* Bristol.

Webb J.M., Frankel D., Stos Z.A., Gale N.

2006 Early Bronze Age Metal Trade in the Eastern Mediterranean. *OJA* 25 (3): 261-288.

Weiss H., Courty M.-A.

1993 The Genesis and Collapse of the Akkadian Empire. In: M. Liverani (Ed.) *Akkad: The First World Empire*, 131-155. Padova.

Werbart B.

2001 Introduction: Cultural Interactions in Europe and the Eastern Mediterranean During the Bronze Age (3000–500 BC). In B. Werbart (Ed.) *Cultural Integrations in Europe and the Eastern Mediterranean during the Bronze Age (3000–500 BC)*, 1-5. Oxford.

Węgrzynowicz T.

1978 Osadnictwo kultury trzcinieckiej i łużyckiej w Drohiczynie, woj. białostockie, na stanowisku Kozarówka. *Wiadomości Archeologiczne* 43: 32-61.

Wicik B.

2005 Gleby. In: A. Richling, K. Ostaszewska (Eds) *Geografia fizyczna Polski*, 201-244. Warszawa.

Wielowiejski J.

1980 *Główny szlak bursztynowy w czasach cesarstwa rzymskiego.* Wrocław.

Wiszniewski W., Chelchowski W.,

1975 *Charakterystyka klimatu i regionalizacja klimatyczna Polski.* Warszawa.

Wiślański T.

1966 *Kultura amfor kulistych w Polsce północno-zachodniej.* Wrocław – Warszawa – Kraków.

1979 Dalszy rozwój ludów neolitycznych plemion kultury amfor kulistych. In: W. Hensel, T. Wiślański (Eds) *Neolit. Prahistoria ziem polskich.* Vol. 2. Wrocław: 261-299.

Wład P.

1996 *Województwo przemyskie. Zarys geograficzny.* Przemysł.

Włodarczyk P.

2006 *Kultura ceramiki sznurowej na Wyżynie Małopolskiej.* Kraków.

Wołoszyn M.

2004 Obecność ruska i skandynawska w Polsce w X-XII w. – wybrane problemy.

- In: M. Salamon, J. Strzelczyk (Eds) *Wędrowka i etnogeneza w starożytności i średniowieczu*, 245-276. Kraków.
- Wtorow P.P., Drozdow N.N.
1988 *Biogeografia kontynentów*. Warszawa.
- Yakovenko N.
2006 *Narys istorii serednovichnoy ta rannomodernoy Ukrainy*. Kiev.
- Yakovenko V.V.
1991 Pro skifski veretena. In: *Zoloto stepu. Arkheologia Ukrainy*, 112-114. Schleswig.
- Yarovoy E.V.
1985 *Drevneyshiye skotovodcheskiye plemena Yugo-Zapada SSSR*. Kishinev.
- Yoffe N.
1995 The Economy of Ancient Western Asia. In: J. Sasson (Ed.) *Civilizations of the Ancient Near East*, 1387-1399. London – New York.
- Yuhong W.
1994 *A Political History of Eshnunna, Mari and Assyria During the Early Old Babylonian Period (From the End of Ur III to the Death of Šamši-Adad)*. Changchun.
- Zakharuk J.M.
1959 Do pitannya pro spivvidnosennya i zvyazki mizh kulturoyu liychastogo posudu i tripilskoyu kulturoyu. In: *Materiali do arkheologii Prikarpattya i Volini*, 54-72. Lviv.
- Zakharuk J.M., Telegin D.J.
1985 Kultura lineyno-lentochnoy keramiki. In: *Arkheologia Ukrainskoy SSR* 1, 126-132. Kiev.
- Zajac A.
1981 Studies on the origin of archaeophytes in Poland. Part I. Methodical considerations. *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Botaniczne*, 11: 87-107.
1984 Studies on the origin of archaeophytes in Poland. Part II. Taxa of Mediterranean and Atlantic-Mediterranean origin. *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Botaniczne*, 14: 7-50.
1987 Studies on the origin of archaeophytes in Poland. Part III. Taxa of Irano-Turanian, Euro-Siberian-Irano-Turanian and Mediterranean-Irano-Turanian origin. *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Botaniczne*, 15: 93-129.
1988 Studies on the origin of archaeophytes in Poland. Part IV. Taxa of Pontic-Pannonian, Mediterraneo-South Asiatic, South Asiatic and Middle European origin. Archaeophyta anthropogena. Archaeophyta resistentia. Ar-

chaeophytes of unknown origin. *Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Botaniczne*, 17: 23-51.

Zajac A., Zajac M. (Eds)

2001 *Distribution Atlas of Vascular Plants in Poland. Laboratory of Computer Chorology, Institute of Botany, Jagiellonian University. Cracow.*

Zalcman E.

2004 *Poseleniya kultury shnurovoy keramiki na territorii Kaliningradskoy oblasti. Kaliningrad.*

Zastawnyj F., Kusiński W.

2003 *Ukraina: przyroda – ludność – gospodarka. Warszawa.*

Zemanek B.

1998 Świat roślinny. In: *Europa. Encyklopedia Geograficzna Świata. Tom 5, 52-57. Kraków.*

Zich B.

1992/93 Die Ausgrabungen chronisch gefährdeter Hügelgräber der Stein- und Bronzezeit in Flintbek, Kreis Rendsburg-Eckernförde. Ein Vorbericht. *Offa* 49/50: 15-31.

1996 Studien zur regionalen und chronologischen Gliederung der nördlichen Aunjetitzer Kultur. *Vorgeschichtliche Forschungen*, Bd. 20. Berlin – New York.

Ziętara T.

1998 Rzeźba. In: *Europa. Encyklopedia Geograficzna Świata. Tom 5, 30-37. Kraków.*

Zimmerman T.

2007 Anatolia and the Balkans, once Again – Ring-Shaped Idols from Western Asia and a Critical Reassessment of Some ‘Early Bronze Age’ Items from İkiztepe, Turkey. *OJA* 26 (1): 25-33.

Zoll-Adamikowa H.

2000 Postępy chrystianizacji Słowian przed rokiem 1000 (na podstawie źródeł nekropolicznych). In: A. Żaki (Ed.) *Święty Wojciech i jego czasy. Polski Uniwersytet na Obczyźnie*, 103-109. Kraków.

Zych R.

2007a *Kultura pucharów lejkowatych w Polsce południowo-wschodniej / The Funnel Beaker Culture in South-Eastern Poland. Collectio Archaeologica Resoviensis 7. Rzeszów.*

2007b Społeczności międzyrzecza Dniestru i Sanu w dobie środkowego neolitu (IV tys. p.n.e.) / Die Gemeinschaften des Gebietes zwischen Dnjestr Und San im Mittelneolithikum (4. Jt. v.u.Z.). In: M. Dębiec, M. Wołoszyn (Eds) *U źródeł Europy Środkowo-Wschodniej: pogranicze polsko-ukraińskie w per-*

spektywie badań archeologicznych / Frühzeit Ostmitteleuropas: Das polnisch-ukrainische Grenzgebiet aus archäologischer Perspektive. Collectio Archaeologica Ressoviensis 5, 67-80. Rzeszów.

Żółkiewski M.

1998 Wody. In: *Europa. Encyklopedia Geograficzna Świata*. Tom 5, 41-48. Kraków.

LIST OF AUTHORS

Yuriy Boltryk
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine
E-mail: boltryk@ukr.net

Yuriy M. Brovender
Donbas State Technical University
Lenina 16
94204 Alchevsk
Ukraine
E-mail: brovender@mail.ru

Katerina P. Bunyatyán
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine
E-mail: bunyatyán@iananu.kiev.ua

Justyna Cieszewska
Institute of Eastern Studies
Adam Mickiewicz University
28 Czerwca 1956, 198
61-486 Poznań
Poland
E-mail: jcieszewska@gmail.com

Janusz Czebreszuk
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: jancze@amu.edu.pl

Sylwester Czopek
Institute of Archaeology
Rzeszów University
Hoffmanowej 8
35-016 Rzeszów
Poland
E-mail: sycz@univ.rzeszow.pl

Kirill V. Gorbenko
Institute of History
Mykolaiv State University
Nikolska St. 24
54030 Mykolaiv
Ukraine
E-mail: dikiyasad@mail.ru

Juriy. S. Grebennikov
Institute of History
Mykolaiv State University
Nikolska St. 24
54030 Mykolaiv
Ukraine
E-mail: dikiyasad@mail.ru

Marcin Ignaczak
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: ignaczak@amu.edu.pl

Lubov S. Klochko
Museum of Historical Treasures of Ukraine.
21, Sichnevoho povstannia street
01015 Kiev
Ukraine

Viktor I. Klochko
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine
E-mail: vklochko@ukr.net

Vitalij Konopla
Institute of Ukrainian
Studies of the National Academy
of Sciences of Ukraine
Lviv

Aleksander Koško
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: antokol@amu.edu.pl

Mykola N. Kryvaltsevich
Institute of History
Academy of Sciences of Belarus
F. Skoryna 1
220072 Minsk
E-mail: kryvaltsevich.arch@tut.by

Jerzy Libera
Institute of Archaeology
Maria Curie-Skłodowska University
Maria Curie-Skłodowska Square 4
20-031 Lublin
Poland
E-mail: jlibera@o2.pl

Sergey D. Lysenko
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine

Svetlana S. Lysenko
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine

Jan Machnik
Institute of Archaeology and Ethnology
Polish Academy of Sciences
Sławkowska 17
31-016 Kraków
Poland

Przemysław Makarowicz
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: przemom@amu.edu.pl

Miroslaw Makohonienko
Institute of Paleogeography and Geoecology
Adam Mickiewicz University
Dzięgielowa 27
61-680 Poznań
Poland
E-mail: makoho@amu.edu.pl

Vitaliy V. Otroshchenko
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine
E-mail: otroshchenko@iananu.kiev.ua

Jarosław Rola
Stanisław Staszic Regional Museum

Browarna 7
64-920 Piła
Poland
E-mail: jarola@interia.pl

Valery Samolyuk
Institute of Archaeology
National Academy of Science of Ukraine
Heroyiv Stalingrada 12
254655 Kiev
Ukraine

Jarosław Sobieraj
Museum of Warmia and Mazury
Zamkowa 2
10-074 Olsztyn
Poland
E-mail: jsobieraj@poczta.onet.pl

Paulina Suchowska
Institute of Prehistory
Adam Mickiewicz University
Św. Marcin 78
61-809 Poznań
Poland
E-mail: paulina.suchowska@interia.pl

Marzena Szmyt
Institute of Eastern Studies
Adam Mickiewicz University
28 Czerwca 1956, 198
61-486 Poznań
Poland
E-mail: marzena@amu.edu.pl

Katarzyna Ślusarska
Institute of Archaeology
Faculty of History
Gdansk University
Grunwaldzka 238a
80-266 Gdańsk-Oliwa
Poland
E-mail: kslusarska@poczta.wp.pl

Witold Tyborowski
Institute of History
Adam Mickiewicz University
Św. Marcin 28
61-809 Poznań
Poland
E-mail: witoldtyborowski@op.pl

ERRATA BALTIC-PONTIC STUDIES, vol. 14

Page	For	Read
12	Fig. 3. 'The router of the Argonauts' journey according to S. Czarnowski [Czarnowski 1937/1956 – visualization by the present authors]	Fig. 3. 'The Route of the Argonauts' Journey According to S. Czarnowski [Czarnowski 1937/1956 – visualization by the present authors]. Legend: 1 – routes, 2 – routes?
153	Koško, Szmyt 2007	Marciniak 2004
526	Koško A., Szmyt M. 2004a <i>Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru</i> . Archeologia Bimaris 3. Poznań.	Koško A., Szmyt M. 2004a (Eds) <i>Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru</i> . Archeologia Bimaris 3. Poznań.
526	Koško A. Szmyt M. (Eds.) 2007 <i>Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru w IV – III tys.</i> Archaeologia Bimaris 3: 35-42.	Marciniak A. 2004 Mikrospołeczny wymiar pasterstwa i nomadyzmu i tafonomiczne podstawy ich identyfikacji w materiałach faunistycznych. In: A. Koško, M. Szmyt (Eds) <i>Nomadyzm a pastoralizm w międzyrzeczu Wisły i Dniepru</i> . Archaeologia Bimaris 3: 35-43.