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The environmental conditionings of the location of primeval
settlements in the Wieprz River valley
in the Nadwieprzański Landscape Park

Środowiskowe uwarunkowania lokalizacji osadnictwa pradziejowego w dolinie Wieprza
w Nadwieprzańskim Parku Krajobrazowym

ABSTRACT

The Wieprz River along the section currently occupied by the Nadwieprzański Landscape Park (NLP) constituted a convenient place of human settlement from the moment of retreat of the last ice sheet. Depending on the types of economy preferred by representatives of individual archaeological cultures, the river valley from Spiczyn to Dorohuczka offered continuous access to water. This obviously gained additional importance from the moment of appearance of Neolithic cultures, particularly the Globular Amphora culture and Corded Ware culture with semi-nomadic style of life, dealing with breeding. Neolithic hunters-gatherers exploited the animal resources available in the river and its vicinity. The further role of fishing, i.e. providing a diet element or supplementation already in the conditions of agricultural-breeding economy, seems to be evidenced by findings of fishing hooks at Lusatian and Wielbark sites. Another factor affecting the location of settlements in NLP was also its close vicinity to the crops of the Rejowiec flint. According to archaeologists, this is particularly obvious in the case of the Late Palaeolithic and the turn of the Neolithic and Bronze Age. The communication function of the river could also be of importance: in the case of seasonal animal migrations of animals and hunters (Late Palaeolithic); livestock and shepherds (Globular Amphora culture and Corded Ware culture); or people alone (migration of the population of the Wielbark culture to the Red Sea). The fact that a commercial trail fragment was located along the Wieprz River is probably evidenced by the abundance of import from various parts of Europe at site 53 in Spiczyn. Fertile soils (black soils, silt-peat soils) prevailing in the valley also favoured the settlement of cultures with an agricultural-breeding model of economy, providing good conditions for horticulture. Meadows near the river could be used as pastures.

Key words: archeology, primeval settlements, Wieprz River valley, Nadwieprzański Landscape Park, Lublin voivodship

INTRODUCTION

River valleys have always constituted an ecumene and determined the directions of management of new territories. The development of settlement along the Wieprz River was favoured by convenient environmental conditions. Along the upper course of the river, in the region of Roztocze, specific environmental conditionings contributed to the development of particular models of environment management and forms of economy. The area's inhabitants used the benefits of the forests: wood, game, and the undergrowth. Forests covering more elevated areas provided protection of life and property. Along the lower course of the Wieprz River, within the extensive ice marginal valley, the wide and flooding river provided large amounts of fish. The riverside carr assemblages overgrowing the valley bed constituted a refuge for wild birds. Extensive meadows and peatlands enabled livestock pasturage (Kłosińska 2004).

In search of optimal and safe life and farming conditions, people selected areas distinguished by high diversity of features of the natural environment, providing the possibility for use of several different ecosystems. Such conditions occurred in the middle course of the Wieprz River, among others in the area of the present Nadwieprzański Landscape Park (NLP). This is evidenced by a high number of archaeological sites – remains of primeval settlement (Kłosińska 2004).

Based on long-term archaeological works, researchers attempt to determine when human populations appeared in the study area, and in what manner they contributed to the transformation of the landscape throughout the past thousands of years? Majority of archaeological sites in the study area are located within the Wieprz River valley bed, and in the valleys of its larger tributaries – the Świnka and Gielczew Rivers. Archaeological studies permitted the determination of the cultural diversity in NLP. Lack of extensive, wide-scale, interdisciplinary, multi-seasonal excavation works, however, only allows to present in a general way the effect of the natural environment on the primeval settlement of this fragment of the Wieprz River valley.

STUDY AREA

The Nadwieprzański Landscape Park is located in the central part of the Lublin voivodship. It covers a fragment of the Wieprz River valley most valuable in environmental and cultural terms (Fig. 1).

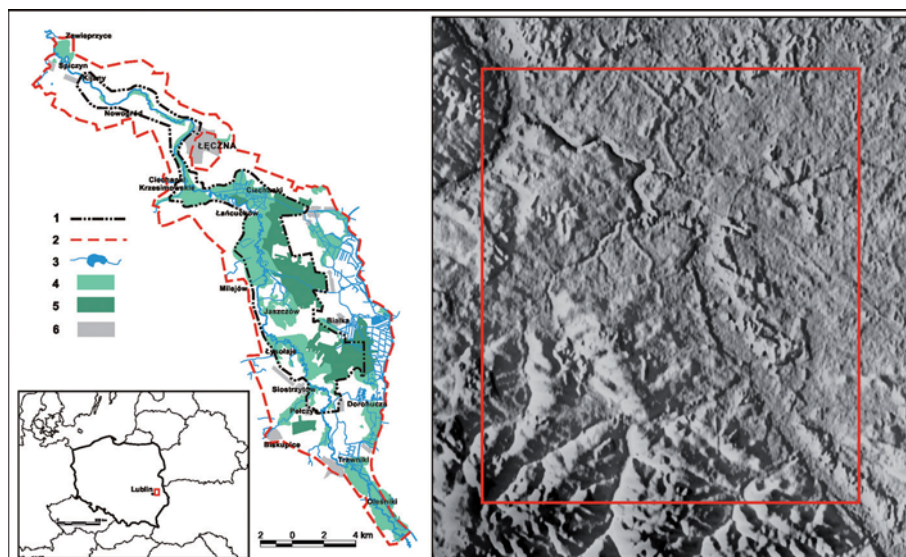


Fig. 1. Location of the study area. 1 – NLP boundaries, 2 – NLP buffer zone, 3 – waters, 4 – meadows, pastures, 5 – forests, 6 – settlements

NLP is located at the boundary of two large physiogeographic units, the Małopolska Upland and West Russian Lowland, with differing physiographic features. This results in a high number of types of landforms (Kondracki 2000). The northern (the Wieprz River gorge) and the north-western part of the Park are located within the Świdnik Plateau (also called the Łuszczów Plain or Łuszczów Plateau), belonging to the Lublin Upland. The southern part of the Park is located within the Dorohucza Depression (also called the Dorohucza Plain or Dorohucza Basin), the most south-bound mesoregion of Polesie Lubelskie (Chałubińska, Wilgat 1954; Kondracki 2000). In both of the units, lithologically varied rock layers occur: carbonate and carbonate-siliceous, categorised to the Upper Cretaceous and Palaeocene. They are covered by Tertiary and Quaternary deposits. The surface is composed of Pleistocene and Holocene formations. The Pleistocene is represented by glacial tills, varved clays, silts, and lacustrine clays, as well as sands with fluvio-glacial gravels. River valleys are filled with Holocene formations, mainly fluvial sands and alluvial soils, but also peaty muds and peats (Hara-simiuk, Henkiel 1980).

The most important element of the NLP land relief is the Wieprz River valley with SE-NW orientation, with a shape of an arch towards NE. The valley is distinguished by a clear division into two sections. The gorge section (so-called Łęczna gorge of the Wieprz River) is located on the Świdnik Plateau in the uplands belt. The southern section is located in the Dorohucza Depression, in an area

with a lowland character. A small fragment of the Wieprz River valley has zonal orientation – it corresponds with two faults developing a graben running along the southern boundary of the loess area and the Mogielnica River valley (Harasimiuk, Henkiel 1980).

The gorge section of the Wieprz River has the character of a narrow, winding gorge with steep and high (>20 m) slopes. Its bottom has a width of only 300 m. In a number of places, the slopes dissect weakly bifurcated, short, but deep gullies and ravines (Harasimiuk, Henkiel 1980). The channel of the gorge section of the Wieprz valley is filled with sandy-gravel formations with a thickness of up to 10 m (Maruszczak 1974), covered by Holocene alluvial soils (Harasimiuk, Henkiel 1981).

In the narrow gorge section of the Wieprz River valley, two basic generations of terraces were distinguished: non-flood and flood terraces. The upper non-flood terrace occurs among others near Kijany at an altitude of 14–18 m above the valley bed. The landform is composed of sands, loess-like silts, limnic clays (so-called Spiczyn clays), and fluvio-glacial sands. The lower flood terrace, with a relative height of 7–12 m, occurs e.g. near Łęczna, Trębaczów, and Dąbrówka. The terrace is mainly composed of Pleistocene sands. It is separated from the Wieprz River valley bed by a generally distinguishable edge with a height of several meters.

Flood terraces are composed of three parts. The highest part has a relative height of 2–4 m, and occupies small areas. It is very rarely flooded. The largest part of the valley is occupied by the lower flood terrace, reaching up to 2.5 m above the river's water level. The lower terrace is flooded during each larger backwater on the Wieprz River. The lowest flood terrace is directly adjacent to the channel, or somewhat separated from the lower banks of the river with narrow belts of valley bed lowerings. The lowest terrace with a height from 0.5 to 2 m is composed of sandy meander scroll ridges. It is often flooded as a direct result of backwater events.

Between Pełczyn and Łańcuchów, the Wieprz River develops a valley indented from 12 to 20 m into the accumulative level of the Dorohuczka Depression. Harasimiuk and Henkiel (1976) distinguished four terraces within its area. The high (erosional) terrace, with a relative height of 4 to 7 m, is composed of sands and sands with gravels of fluvial-periglacial origin from the North Polish Glaciation. The sands partially eroded, and then were covered by a thin layer of dust. The terrace does not constitute a compact zone. Only its fragments are preserved. On the valley bed, it develops small dry islands above the wet bottom. They are sometimes forested or colonised (Kolonja Jaszczów). A well preserved fragment of the terrace is located between the mouth of the Giełczew River and a stream with no name flowing into the Wieprz River in Łysołaje. The middle terrace (accumulation terrace I) of 2.0–4.5 m is composed of sandy formations of meander scroll ridges of a river with a discharge several times higher than that of the current Wieprz River. The low terrace (accumulation terrace II) with a height of 1.0–2.5 m

is composed of alluvial soils, peats, and organic-mineral aggregate muds. The age of the terrace, originating in the Preboreal, was determined based on datings of peats filling the oxbow lakes (Harasimiuk, Henkiel 1980). The lowest near-channel terrace with a relative height from 0.5 to 2.0 m constitutes the meandering belt of the river, and is composed of Holocene alluvia. Numerous oxbow lakes of various size and origin are preserved within the area of lower terraces. The “fresh” oxbow lakes are related to the lowest accumulation terrace on the Wieprz River valley bed. They currently develop by cutting off the meander necks of the most developed meanders. In majority of cases, they remain to be filled with water. The highest number of oxbow lakes occurs in the southern section of the Wieprz River valley, in the vicinity of Jaszczów, Milejów, and Łańcuchów.

The Wieprz River valley slopes are deeply dissected by the mouth sections of small rivers: Świnka, Mogielnica, Stawek, Gielczew, and somewhat less clearly Białka. They are young landforms. Only the lowest terrace is distinguishable in their beds. The Stawek River valley bed, dissected by a regulated channel with a depth of up to 2 m, is composed by peaty muds with a thickness of up to 5–6 m. They are deposited on older alluvial formations. The Świnka River valley bed is strongly transformed anthropogenically. The lowest terrace is very vaguely visible here.

Smaller landforms dissecting the Wieprz River valley slopes are small erosional-denudational valleys (gullies, ravines, etc.). They most frequently accompany the edges of the Wieprz River valley, composed of loess-like formations (e.g. in the vicinity of Ziółków).

The geological bedrock and land relief had a strong effect on the development of the soil cover in NLP and its buffer zone. Approximately half of the area of the Park is occupied by alluvial soils composed of sands and fluvial silts with varied thickness. It is largely covered by soils categorised as semihydrogenic and hydrogenic soils: black soils, silt-peat soils, gleysoils, and muck soils. The mosaic of soils is accompanied by brown soils (of various sub-types) and podsollic soils, lessive soils and rendzinas (Turski et al. 1993).

THE PALAEO-LITHIC

After the retreat of the last ice sheet from the lowland area, the very cold climate was gradually warmed, resulting in the expansion (migration) of vegetation and animals in the northern direction. After the Bølling oscillation (13600–11900 BC), the Lublin Region was colonised by late Palaeolithic hunting cultures. Their economic model was strictly related to cyclical migrations of herds of reindeers in the tundra environment. In the Allerød interstadial (11700–11000 BC), communities with a tradition of backed blades (Late Allerød to beginning of Younger Dryas) and Lyngby leaf-shaped blades (second half of the Allerød to first half of Younger Dryas). The main migration occurred in the Younger Dryas (11000–9500

BC), together with the appearance of hunters from the Swiderian culture (so-called Mazovian cycle), inhabiting the area in the Late Palaeolithic (Libera 1995, 2006a).

The oldest traces of human settlement in the study area were discovered at sites located in Łęczna, Jaszczów, Białka, and Dorohuczka (Fig. 2). The flint tools found at the sites were made of Świeciechów and chocolate flint. The former material was obtained from the western part of the Urzędów Hills (in the vicinity of Annopol and Świeciechów), and the latter was excavated in the north-eastern part of the Świętokrzyskie Mountains. The extensive area of findings of the items documents the mobility of human groups, and the scope of economic penetration in the period (Libera 1995). J. Libera (2006, 2006a) lately also emphasised the significance of Rejowiec flint crops of postglacial origin, located east of the Dorohuczka Depression on the Chełm Hills. The raw material occurring in the area constituted a reserve used by representatives of cultures with a tradition of leaf-shaped blades, including the Swiderian culture. The findings referring to this period of the primeval history of NLP include objects found in Jaszczów, on a dune commonly called “Dębowiec”. These are among others leaf-shaped blades steeply or semi-steeply retouched on both sides used as arrowheads, scrapers, i.e. tools for removal of remains of meat and fat, regular backed edge blades with one raw and one retouched side coming together at the tip, used as knives and chisels – equivalents of a graver or chisel (Woś 2001). The relics mainly come from surface studies, and from taxonomically varied private collections. Due to this, the conclusions drawn based on such findings, in connection with the lack of extensive interdisciplinary excavation works, are more hypothetical than data regarding Late Palaeolithic settlement, obtained from more thoroughly studied parts of Poland.

The dry, cold, and windy climate of the Younger Dryas resulted in the occurrence on the uplands of southern Poland of loose patches of forests composed of pine, birch, and larch, with patches of steppe vegetation and juniper shrubs in the Park's landscape (Latałowa 1976). Findings from other regions of Poland (among others from Grzybowa Góra near Skarżysko-Kamienna) suggest that the communities of the Swiderian culture established small, temporary settlements, mainly in river valleys, on sandy terraces and dunes in the vicinity of water bodies. The shelters built of wood or skins and bones were light and easy to assemble. This favoured the nomadic lifestyle of Late Palaeolithic populations. The population, mainly dealing with hunting (for reindeers and elks) and to a lesser degree fishing and gathering, did not strongly or permanently affect the surrounding landscape. The periodically developing colonies of nitrophilic vegetation around the settlements quickly disappeared when the groups changed the place of settlement. In summer, Swiderian hunters moved together with herds of reindeers migrating to the north, entering the tundra occupying the lowland. In winter, they found shelter in Boreal forests gradually encroaching into the study area from the south (Schild 1975).

THE MESOLITHIC

At the turn of the Pleistocene and Holocene, the Swiderian culture slowly diminished (post-Swiderian phase). One of the reasons was radical warming of the climate on the Earth. Tundra and forest tundra moved more and more to the north together with the retreating glacier. In the Boreal period (9500–8200 BC), the entire territory of Poland was covered by forest formations. The landscape was dominated by pine-birch forests, with local higher contribution of willow (Fijałkowski 1972). Due to the progressing climate warming, in the Boreal period (8200–7000 BC), conditions favourable for forests with more contribution of deciduous trees occurred. At the end of the Boreal period, oak, elm, and lime appeared. Among bushes, hazel appeared, and in river valleys – the first alder forests (Fijałkowski 1972, Ralska-Jasiewiczowa 1999). In river valleys, fluvial processes stabilised (Maruszczak 1974). At the end of the Mesolithic, changes in the vegetation occurred, related to the Atlantic period (7000–3800 BC) with mild winters and mean annual temperature higher by 2°C than the contemporary one. This was the period of the Holocene climatic optimum.

Climatic changes strongly affected the life of the human population. The population of the post-Swiderian culture was forced to migrate to the north, following the retreating herds of reindeers. A new, Mesolithic type of economy appeared in the area, based on the exploitation of typically forest environment. The appearance in forests of a high number of small, fast animals forced Mesolithic hunters to choose smaller, more precise, and more effective blades. Miniaturisation (microlithisation) of flint tools occurred. Along with hunting, the representatives of the Mesolithic population also dealt with gathering and fishing.

In the vicinity of Łęczna and Jaszczów (Fig. 2), several Mesolithic sites were identified. Flint tools were found there, correlated by archaeologists with the representatives of the Komornica culture (late phase 6000 BC), Chojnice-Pieńki culture (currently included in the so-called Magnemiosian technocomplex), and Janisławice culture (5000–4000 BC) (Libera 1995, 2006a; Tymczak 1991; Ryś 1999, 2000). A typical feature of settlements established in the Mesolithic is their occurrence on dunes or other dry sandy areas overgrown by pine forests. The Mesolithic population did not cause significant changes in the landscape. The only anthropological elements were temporary human settlements with a character of encampments and forest paths leading to water bodies (Gurba 1978).

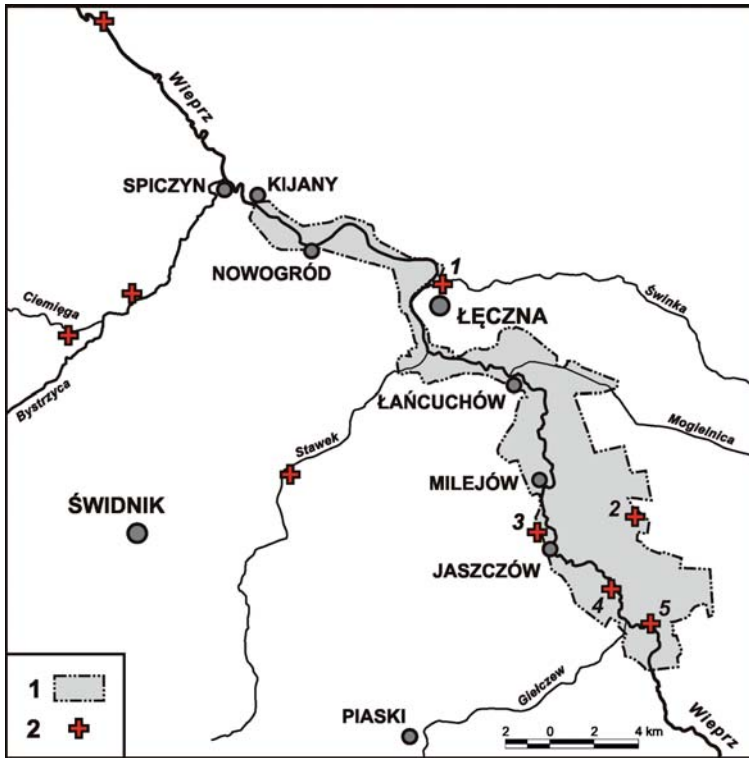


Fig. 2. Location of Palaeolithic and Mesolithic sites in the area of NLP (according to J. Libera 1995). 1 – NLP boundaries, 2 – archaeological sites: 1 – Łęczna: 4 sites (Palaeolithic, Mesolithic, Early and Late Mesolithic), 2 – Białka: 2 sites (Late Palaeolithic/Early Mesolithic, Late Palaeolithic), 3 – Jaszczów (Late Palaeolithic, early and Late Mesolithic), 4 – Glinki (Palaeolithic, Late Mesolithic), 5 – Dorohucz: 2 sites (Late Palaeolithic, Late Palaeolithic/Mesolithic)

THE NEOLITHIC

Significant changes in the landscape of the contemporary NLP occurred at the moment of appearance in the area of agricultural Neolithic and semi-nomadic Late Neolithic cultures. The Younger Stone Age in Poland is dated for the period from 5440/5380 to 2440/2290 BC (Kruk, Milsauskas 1999). In the Neolithic, the existing hunting-gathering model changed to the production agricultural-breeding model, manifested in significant demographic, settlement, and technological transformations (Gurba 1978).

In the initial phase of the Younger Stone Age, the landscape was dominated by mixed forests related to the still lasting Atlantic climatic phase. In lowland and sandy areas, pine was the dominant tree species. In upland areas (the Sandomierz Upland, Małopolska Upland), oak forests with abundant hazel shrubs predominated. Apart from oak, the forests also included lime, elm, ash, and maple. Sunny

chalk and loess slopes were overgrown by steppe vegetation, and shaded slopes by forest-steppe assemblages with an appearance of park oak forests with a contribution of pine. River valleys were occupied by alder riparian and elm-ash forests. High level of groundwaters and dying of vegetation favoured the development of peatlands. In river valleys, accumulation processes were prevalent, mainly those of organogenic (silts and peats) or alluvial type. The area currently occupied by NLP and its buffer zone was almost entirely covered by a tree formation, perfectly masking smaller land denivelations. Due to this, the landscape at the beginning of the Neolithic was little differentiated (Fijałkowski 1972, Maruszczak 1974, Ralska-Jasiewiczowa 1999).

The Neolithic population established settlements near rivers, and used land on their terraces, occupied by forests and riparian thickets, or on boundaries of plateaus covered with a mixed deciduous forest. It mainly dealt with land cultivation and cattle breeding, gradually transformed from one with domestic character to the pasture-cowshed system (Kruk 1980). The basic tools applied by the Early Neolithic tribes included diggers and hoes. More thoroughly studied upland areas of Małopolska include evidence of permanent cultivation of small fields (Kruk, Milisauskas 1999). Neolithic societies had the ability to make and kiln clay vessels, as well as new and improved old techniques of flint and stone processing. The semi-sedentary style of life related to extensive economy was later substituted by the first large and permanent settlements. Overground or partly dug-out residential constructions were built there, together with various dug-out domestic facilities, e.g. storage and waste disposal pits, as well as objects interpreted as flint or pottery workshops.

In Jaszczów, scarce traces of the population of the Linear Pottery culture were found (5600–4900 BC). The culture is recognised to have constituted the first agricultural communities in the area of today's Poland, coming from south-eastern Europe with the first wave of the so-called neolithisation of the Danube Valley. In the Lublin Region, the settlement seems to have had rather the character of penetration than of permanent occupation. The sites occur in low numbers and in high dispersion (Zakościelna 1996).

At the turn of the 5th millennium BC, the area currently occupied by NLP was colonised by a population adorning its vessels with white painted ornaments. The specific manner of ceramics decoration and the territorial expansion (extensive areas of the Lublin-Volhynian Uplands and western part of the Małopolska Upland) determined the archaeological name of this taxonomic unit: Lublin-Volhynian culture of painted pottery. The traces of its settlement – ceramics, as well as flint and stone products – were reported from the vicinity of Łęczna, Klarów, Jaszczów, and Dorohucz. In Dorohucz in 1952, also pit graves with elements of belongings of the deceased in the form of clay vessels and microlithic trapezium-shaped blades were found (Kowalczyk 1954/1955; Zakościelna 1996a). The population of the Lublin-Volhynian culture settled on terraces in river valleys. Small

fields located nearby were subject to hoe farming. Domestic breeding of cattle, pigs, and sheep was popular. Such an economic model is described as intensive (Zakościelna 1996).

In the 4th millennium BC, the study area was colonised by the representatives of the Funnel Beaker culture. The population obtained new land for cultivation by burning patches of forest. The extensive fire-fallow type of economy, where fire constituted the basic agrotechnical measure, led to the deforestation of very large areas, particularly plateaus and hill slopes, within a relatively short time (Kruk, Milisauskas 1999). In the vicinity of Jaszczów, Łęczna, and Zawieprzycze, a number of movable relics were found, including ceramics and tools (Gajewski 1969; Ryś 1999; Ryś 2000; Tymczak 1989). The findings were mainly reported from surface studies conducted in the scope of the Polish Archaeological Record (Archeologiczne Zdjęcia Polski AZP) and from random findings. As a result of a random finding related to the construction of a road in Stara Wieś near Łęczna, and later rescue project conducted by J. Gurba in 1956, a grave, probably of pit character, of the Funnel Beaker culture was identified. In addition to bones, it contained among others a stone hatchet with a knobby head, a small slint blade, and a clay mug with an *ansa lunata* handle (Gurba 1959). In areas studied more thoroughly, particularly upland areas (the Nałęczów Plateau), the population of the Funnel Beaker culture established permanent settlements in places enabling defence, at the foot of steep valley slopes. Fields, located in the non-flood zone and on flood terraces, were cultivated by the animal ploughing method involving the application of the pulling power of animals. This is evidenced by e.g. the handle of a clay vessel formed in a shape of two oxen with a yoke, found in Krężnica Jara near Lublin (Kruk, Milisauskas 1999).

The presence of the Funnel Beaker culture in the study area constituted the commencement of anthropogenic transformations in the landscape. At that moment, the continuous process of transformations of the natural landscape and geographic environment by adding more and more permanent elements related to settlement began (Gurba 1978). The scale of the changes was so large that the forest assemblages did not manage to regenerate in their original form any more, as it was the case before, after ceasing of temporary human activity. They were replaced by anthropogenic assemblages (Ralska-Jasiewiczowa 1999). Along with more and more advanced land cultivation, and increasing density of the human population, forest areas decreased slowly, but continuously. This was reflected in an increase in erosion and denudation processes in deforested areas, and in the accumulation of material in river valleys (Gurba 1978).

The populations of the further Neolithic cultures: the Globular Amphora culture (3200–2400 BC) and the Corded Ware culture (2900–2200 BC), used the deforested land constituting the Park's landscape as animal pastures. They had a semi-nomadic style of life, which could gradually change to more stable settle-

ment and a more sedentary lifestyle in the case of occurrence of favourable conditions. This was observed for the Corded Ware culture on the Kraków-Sandomierz loesses (Kruk, Milisauskas 1999). The deforestation and climatic changes occurring during the Subboreal (3800–600 BC), i.e. climate drying, forced people to look for new land to support breeding. A similar shepherd's (nomadic) style of life distinguished both of the cultures. The semi-sedentary populations of the Globular Amphora culture and Corded Ware culture probably occurred one at a time in the area of the central and east Lublin Region. The almost identical mobile economic model excluded their coexistence (Machnik 2004).

THE BRONZE AGE AND EARLY IRON AGE

In spite of the introduction of the use of bronze, flint and stone remained the basic material for the production of agricultural tools, particularly to the east from the Vistula River. The tools manufactured based on improved techniques permitted faster deforestation, and enabled the management of larger areas of land for cultivation. The Early Bronze Age (2400/2300–1600 BC) revealed traces of several cultures in the vicinity of Łęczna: the Chłopice-Vesele culture (currently described as the proto-Mierzanowice phase of the Mierzanowice culture), Mierzanowice culture (2400–1600 BC), and Strzyżów culture (Gurba 1989, Tymczak 1987). On a dune in Jaszczów, traces of two cultures of the Bronze Age were found: the already mentioned Chłopice-Vesele culture (the proto-Mierzanowice phase) and the younger Trzciniec culture (Tymczak 1991). The population of the Mierzanowice culture had a sedentary style of life, and established settlements on the plateau at small valleys. Its economy was largely based on cattle and sheep breeding (Kadrow 2001). At the end of the period a new ritual appeared in the extensive areas of Europe, namely cremation. The ritual was an additional reason for forest clearings (Tymczak 1989).

The highest number of traces from the Bronze Age in NLP was left by the Trzciniec culture (1800–1000 BC). Its population established both large and small settlements. It mainly dealt with breeding (all types of habitats were used as pastures, also poor sandy areas), hunting, and gathering, as well as agriculture to a lesser extent. The settlements were established in valleys of small rivers on near-channel terraces with dunes, and non-flood terraces. The Trzciniec settlement was less sedentary, and less permanent than that of the Mierzanowice culture. A typical feature of the Trzciniec culture was fast adaptation to local conditions (Kadrow 2001; Taras 1995, 2006). Majority of the sites of the Trzciniec culture in NLP were identified based on surface studies in the scope of the Polish Archaeological Record (Fig. 3).

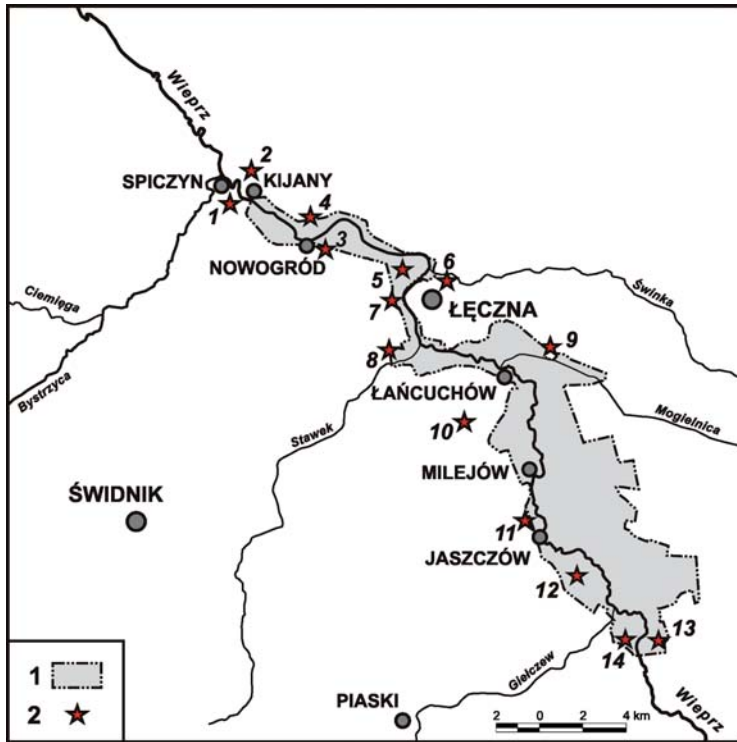


Fig. 3. Location of the Bronze Age-Trzciniac culture sites in the area of NLP (according to H. Taras 1995). 1 – NLP boundaries, 2 – archaeological sites: 1 – Spiczyn, 2 – Stoczek, 3 – Nowogród, 4 – Ziółków, 5 – Trębaczów, 6 – Łęczna, 7 – Rossosz, 8 – Ciechanki Krzesimowskie, 9 – Kajetanówka, 10 – Wólka Bielecka, 11 – Jaszczów, 12 – Majdan Siostrzytowski, 13 – Dorohucza, 14 – Pelczyn

The Trzciniac culture was replaced by the Lusatian culture, continuously occupying the area from 1100 to approx. 400 BC. Sites with traces of the Lusatian culture in NLP are located in Jaszczów, Łęczna (site 17 – settlement) and Ziółków. Remains of a settlement of the culture were also found in Trawniki, located nearby the southern boundary of the Park. Materials of the Lusatian culture from a 19th-century cremation cemetery (1944), among others 50 urns found in 1860, did not survive until the modern times. Later, in the area of the cemetery, fragments of other grave vessels were found, as well as items made of bronze, such as a fishing hook (Tymczak 1991; Kłosińska 2006; Korzeniowska 2001). To the north of the study area, in the vicinity of Lubartów, a microregion described by E. Kłosińska (2004) is located, with numerous traces of settlement of the population of the Lusatian culture. Settlement in this microregion was not stabilised. The settlements were used for a relatively short time. No permanent relics of solid construction have been found so far. The size of the settlements largely depended on the size

of the non-flood terrace surrounded by wet meadows. In addition to settlements, this small area also contained fields and cattle enclosures. Land on plateaus with good soils was probably also subject to cultivation. It was obtained by means of forest burning. This particularly concerned wet-ground forest habitats which according to the study were deforested the earliest (Matuszkiewicz 1999). The inhabitants of the settlements of the Lusatian culture located on the Wieprz River dealt with fishing, as well as probably hunting and gathering to a lesser extent. The environmental conditions occurring in the area were exceptionally favourable for animal breeding. Meadows occupying the wide flood terraces in the Wieprz River valley were used as pastures for cattle, and forests on the plateau for swine. The population also dealt with the production of utility ceramics (“kitchenware” and “tableware”), as well as tools and weapons from still popular flint and stone. The Lusatian settlements were self-sufficient. Their inhabitants dealt with the processing of horn, bones, skins, and wood, as well as with textile production and weaving. The Wieprz River constituted an important communication channel, enabling contact with the inhabitants of other regions, known from the Lower Wieprz and Tyśmienica Rivers, as well as the exchange of goods (Kłosińska 2004).

At the beginning of the Subatlantic climatic phase (600 BC), a deterioration of the conditions occurred, namely the cooling and humidification of the climate. It significantly affected the life of the inhabitants of the area (Ralska-Jasiewiczowa, Starkel 1999). The climate cooling and increase in the precipitation rate and floods made the Wieprz River valley bed a place inaccessible for settlement. It is presumed that it also remained inaccessible in the later period, because no traces of the Pomeranian culture were found in the study area (Kłosińska 2004). The reason for the depopulation of those densely inhabited areas could also be enemy raids. Forest assemblages, especially mixed deciduous forests, began regenerating in the abandoned areas (Ralska-Jasiewiczowa 1999).

THE ROMAN PERIOD

The gradual development of settlement in the vicinity of Łęczna occurred again only at the end of the La Tène period and at the beginning of the Roman period. It was the time of significant intensification of agriculture, manifested in a change of land management techniques, involving the popularisation of permanent arable crops, and the development of iron agricultural tools. Horned cattle breeding led to excessive exploitation of pastures and degradation of their vegetation. During excavation works in Ciechanki Łańcuchowskie, traces of a settlement of the Przeworsk culture were found (the end of the 2nd century/first half of the 1st century BC to the 5th century PC). It probably functioned in the phase of the Younger Pre-Roman period, and lasted almost until the middle Roman period. Wood was the only construction material applied by the representatives of the Przeworsk culture.

It was used to build small semi-dug-outs as well as overground and pole constructions. In Jaszczów, on a large dune in the Wieprz River valley, on the right bank, remains of a cemetery (2 graves) of the culture were identified, containing ceramics as well as numerous metal items, e.g. iron buckles and clasps, and copper finulas (Kokowski 1991; Mazurek, Mazurek 2006; Tymczak 1991). Relics related to the Przeworsk culture were also found in Zawieprzyce (Korzeniowska 2001).

At the beginning of our era, warming and drying of the climate occurred. This resulted in conditions favourable for the management of low river terraces. Rivers had significantly developed meanders, maintained stable water levels, and did not pose a threat of floods (Maruszczak 1974). Such conditions enabled the human population to find convenient conditions for constructing settlements and establishing cemeteries in the Wieprz River valley. In the area of NLP and its direct vicinity at the right bank of the Wieprz River, also the remains of the probably temporary inhabitancy of the Wielbark culture were found. Its migration to the Red Sea began at the end of the 2nd century PC (Kokowski 2005). Pit and urn cremation graves were identified in Jaszczów (2 graves) and Łęczna (4) (Kokowski 1991), as well as in Ewopol near Trawniki (1) (Gładysz-Juścińska, Juściński 2007). The significant role of animal breeding for the Wielbark culture population is suggested by a vessel with a ram head, coming from one of the graves in Jaszczów. Bronze fishing hooks found on the surface of a cemetery in Łęczna probably constitute evidence of use of the animal resources of the Wieprz River.

Until the middle 1st millennium of our era, landscape transformations involved further reduction of forest areas and change in their composition, expansion of meadows, pastures, and moors, as well as arable fields. High damage to the natural vegetation caused by forest clearings became visible in the landscape of vast areas. As a consequence of replacing forests with arable fields, vegetation similar to the forest-steppe formation in physiognomic terms began developing (Maruszczak 1974). The application of iron ploughing tools forced the introduction of a new manner of land cultivation which in turn led to an increase in the intensity of erosion and denudation processes (Gurba 1978). Settlement changes in the Migration Period (380–560) could also be partially related to the deterioration of the climatic conditions and extreme soil impoverishment (Ralska-Jasiewiczowa 1999). The continuity of settlement on the Middle Wieprz River in the Late Roman period and at the beginning of the Migration Period is strongly suggested by findings from site 53 in Spiczyn, where short excavation works revealed numerous items imported from the area of the Roman Empire as well as Scandinavia and the Merovingian dynasty. They suggest contact of the local population inhabiting the area located on an important commercial trail with various regions of civilised Europe (Łuczkiwicz 2007).

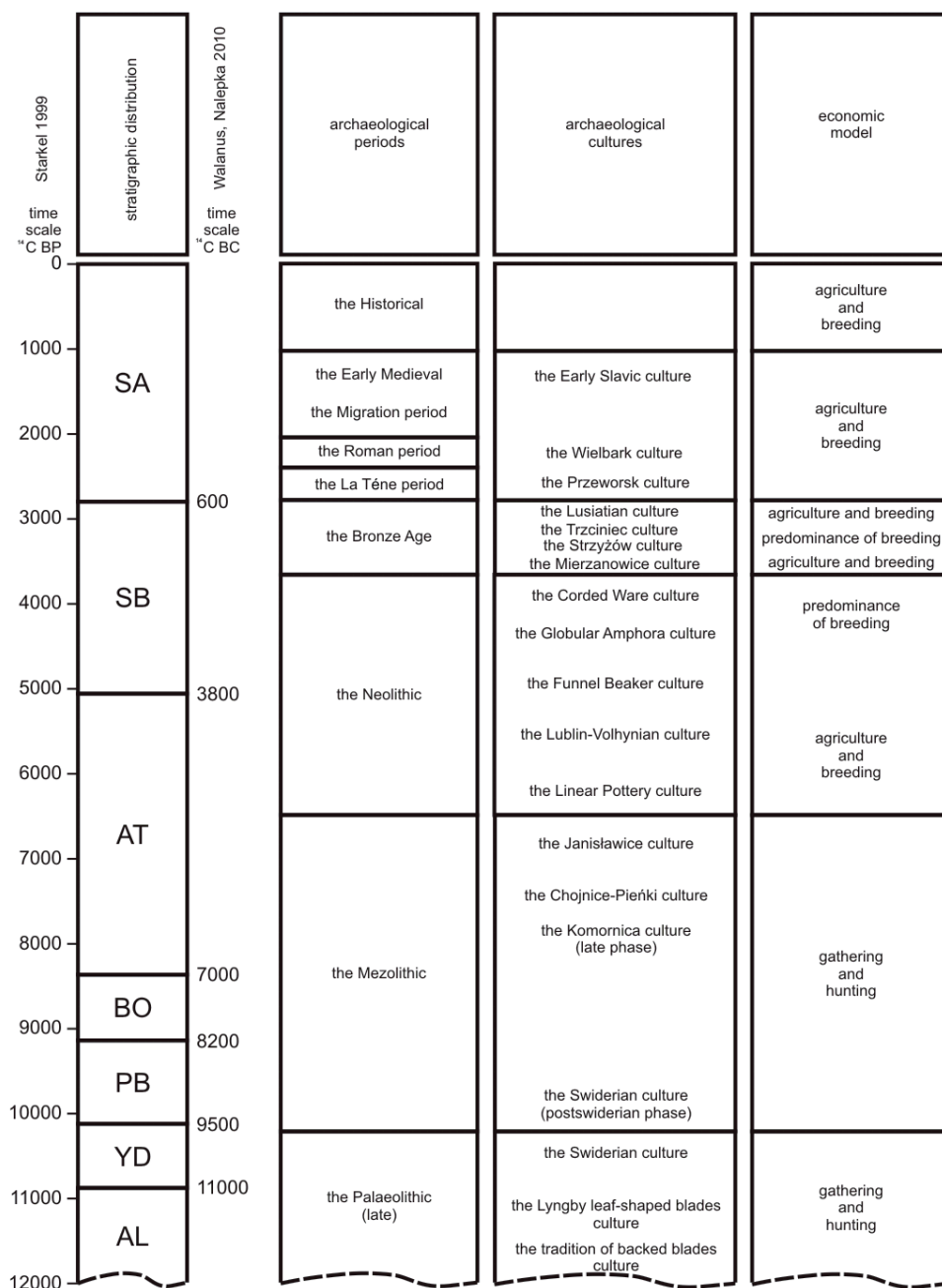


Fig. 4. The development of primeval settlement in the area of NLP in relation to the Holocene stratigraphy (according to Starkel 1999; Walanus, Nalepka 2010)

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STRESZCZENIE

Człowiek od zarania dziejów, poszukując optymalnych i bezpiecznych warunków do życia oraz gospodarowania, wybierał obszary charakteryzujące się dużą różnorodnością cech środowiska naturalnego, stwarzające możliwość eksploatacji różnorodnych ekosystemów. Takie warunki panowały w środkowej części dorzecza Wieprza, w rejonie zajmowanym obecnie przez Nadwieprzański Park Krajobrazowy (NPK), o czym świadczy duża liczba stanowisk archeologicznych – pozostałości osadnictwa pradziejowego. Większość z nich znajduje się w obrębie dna doliny Wieprza oraz w dolinach jego większych dopływów – Świnki oraz Giełczwi.

NPK położony jest w centralnej części województwa lubelskiego i ma charakter typowo doliny. Dolina rzeki Wieprz, stanowiąca główny element jego rzeźby, charakteryzuje się wyraźną dwudzielnością. Północny jej odcinek – położony na Płaskowyżu Świdnickim w pasie wyżyn – ma charakter wąskiego, krętego jaru o stromych i wysokich (>20 m) zboczach. Dno doliny osiąga szerokość 300 m, a miejscami ma nawet poniżej 100 m. Południowy odcinek doliny Wieprza, leżący na terenie nizinnym – w obrębie Obniżenia Dorohuckiego – osiąga miejscami ponad 2,5 km szerokości. Zbocza doliny dochodzą do 20 m wysokości. Rzeka płynie tu kręto, tworząc liczne meandry; obok nich występują zagłębienia wypełnione wodą i martwe zakola – starorzecza. Dolina Wieprza jest wypełniona utworami holoceniowymi, głównie piaskami rzecznyymi, ale również namułami torfiastymi oraz torfami. Na utworach tych wykształciły się mady wytworzone z piasków i mułków rzecznych o różnej miąższości, które zajmują blisko połowę powierzchni NPK, oraz czarne ziemie, gleby mułowo-torfowe, glejowe oraz murszowe.

Zróżnicowanie cech środowiska doliny Wieprza miało istotny wpływ na charakter i rozwój osadnictwa pradziejowego. Najstarsze ślady pobytu człowieka na tym terenie pochodzą ze schyłkowego odcinka starszej epoki kamienia (paleolitu). W tym czasie, podobnie jak w mezolicie, podstawową formą zdobywania pożywienia było zbieractwo i łowiectwo (rybołówstwo). Duża mobilność i sezonowość osadnictwa sprawiły, że przekształcenia ówczesnego krajobrazu były nieznaczne. Dopiero od pojawienia się rolniczych kultur neolitycznych (KCWR – kultura ceramiki wstęgowej rytej, KL-W – kultura lubelsko-wołyńska, KPL – kultura pucharów lejkowatych), gdy osadnictwo przybrało bardziej stabilną formę, proces eksploatacji i stopień transformacji krajobrazu przybrał wyraźnie na sile. Urodzajne i żyzne gleby w dnie doliny sprzyjały lokalizacji osadnictwa kultur stosujących rolniczo-hodowlany model gospodarki, stanowiąc dobre zaplecze pod uprawy typu ogrodowego. Na łąkach porastających szerokie terasy zalewowe wypasano bydło, a w lasach na wysoczyźnie – trzodę chlewną. Silny związek człowieka z rzeką jest widoczny przez cały okres pradziejów. Wieprz nie tylko zapewniał dostęp do wody i pożywienie (znaleziska haczyków na ryby na stanowiskach kultury łużyckiej – KŁ i wielbarskiej – KW), ale przede wszystkim stanowił ważną arterię komunikacyjną, dzięki której możliwy był kontakt z mieszkańcami innych regionów oraz wymiana towarów.

Prowadzone od wielu lat w badanym rejonie prace archeologiczne pozwoliły określić zróżnicowanie kulturowe NPK. Liczba stwierdzonych zabytków i obiektów jest zbyt mała, aby szczegółowo przedstawić rozwój osadnictwa pradziejowego badanego fragmentu doliny Wieprza. Materiał zebrany podczas badań powierzchniowych w ramach Archeologicznego Zdjęcia Polski, zgromadzony w archiwach Wojewódzkiego Urzędu Ochrony Zabytków w Lublinie i Instytutu Archeologii UMCS wymaga opracowania i weryfikacji.

Słowa kluczowe: archeologia, osadnictwo pradziejowe, dolina Wieprza, Nadwieprzański Park Krajobrazowy, województwo lubelskie