

Rescue archaeological excavations on site 14–15 at Witów,  
district of Łęczyca, province of Łódź (The line of freeway A1)

**INTRODUCTION (LUBOMIRA TYSZLER)**

Settlement complex at Witów, site 14–15 (site 72–73 on A1 motorway), commune of Piątek was unearthed at the sector Kowal-Stryków of the A1 future motorway between Łódź and Gdańsk near the flyover WD-234 (fig. 1–2).

Archaeological excavations were carried out by Konrad Jażdżewski Foundation of Archaeological Research in Łódź, between August and the middle of November 2004. The works were supervised by Lubomira Tyszler PhD, in co-operation with Elżbieta Dziubek PhD and Anna Nierychlewska PhD.

The explored area of 159.5 ares was presented on the hectare-are network (ha I–VII) and it yielded 988 features diversified in character, function and cultural-chronological identity (fig. 3–4). The major features include: remains of buildings, utility pits, hearths, lime kilns (8), utility ponds (10) and wells (9).

There were 16 700 artefacts in total. These included 15 650 fragments of vessel pottery and other objects, such as ceramic artefacts, iron spear/javeline? head, flint and stone artefacts. The site consisted of the following chronological-cultural levels: 1. traces of settlement from the Stone Age and the early Bronze Age, 2. traces of settlement from the Lusatian and Pomeranian cultures 3. settlement from the Przeworsk culture, younger pre-Roman period, 4. settlement from the early Middle Ages and the beginnings of the late Middle Ages, 5. settlement from the late Middle Ages modern period and contemporary times. The main part of the site is occupied by the settlement of the Przeworsk culture, recorded on the area of c.a. 145 ares.

**LOCATION OF THE SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ  
(PIOTR KITTEL)**

The site at Witów is located at the valley of the Malina river, which is the right-bank tributary of the Mszczonica river. According to the physical-geographical division, the area is located in the western part of the Łowicz-Błonie Plain. Taking into account the morpho-graphical division of the Łódź vicinity, the area is situated in the Łęczyca Basin, within the boundaries of the Warsaw-Berlin Urstromtal. The site is located at terrace level III of the urstromtal, at the height of 106–119 m above sea level, and in the region of Witów – c.a. 107–115 m above sea level. At the terrace level there are numerous denudated fragments of moraine plateaus, at some points divided by fluvio-glacial deposits and fluvial fills of river valleys, as well as extensive deposits of alluvial fans (fig. 5).

The land form and geological build of the surface were formed during the Wartanian stadial of the Oder river glacial period. The area of the site is located on the border of eluvial deposits of glacial till, sands, gravel alluvial fans and Holocene alluvion of the valley bottom. According to the geomorphological description, the site is located on the denudation plain, plain of alluvial fans and the valley bottom. The main part of the settlement is located on sandy deposit, at some places thick-grained, with admixture of clay. Only the north-eastern part of the site is situated on the sandy-clayey and clayey deposits. In geomorphological terms, the site is located on a very gently sloping surface (less than 1°) of the alluvial fan, dated to the Vistulian, located at 109–111 metres above sea level. It is situated at the inlet of a small denu-

dation valley. North-east and east of the cemetery, there is a flat surface of denudated moraine plateau made up of weathered glacial till of the Wartanian stadial. A very narrow zone of the region is occupied by the bottom of the Malina valley made up of Holocene and late-Vistulian alluvions. On the other side of the bottom of the Malina valley lies Witów dune, 400 m away from the site (fig. 6).

The settlement at Witów from the younger pre-Roman period and the early Middle Ages occupied a territory conducive for settlement, both in terms of location and the natural environment. This enabled versatile economic activity.

#### **SETTLEMENT TRACES FROM THE STONE AGE AND THE EARLY BRONZE AGE, SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ (PIOTR PAPIERNIK)**

The artefacts unearthed on the site consisted of a diversified group of 14 flint artefacts and 15 vessel fragments, attributed to the late Palaeolithic, the Funnel Beaker culture, the Corded Ware culture and the Trzciniec culture (fig. 7–8). All the artefacts attest numerous incidents of the site's penetration by the communities of the Stone Age and the early Bronze Age, whose more permanent settlement forms have been recognised on a large dune cluster at Witów.

#### **SETTLEMENT TRACES FROM THE BRONZE AGE AND THE EARLY IRON AGE, SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ (LUBOMIRA TYSZLER)**

The obtained artefacts consisted of 50 vessel fragments, which represent cultural units, preceding the Jastorf and Przeworsk culture settlement from the younger pre-Roman period. They were found in the western and southern part of the site (within the boundaries of ha III) in the layers of secondary accumulation, at the lower sections of the site (fig. 9).

Technological and stylistic features indicate links of the assemblage in question with the Lusatian culture from III-V period of the Bronze Age and with the Hallstatt period C-D from the early Iron Age. At the same time, they point to the continuation of the settlement represented by the Lusatian-Pomeranian culture cycle. Detailed conclusions are made on the basis of the analysis of characteristic fragments of pottery with clear diagnostic features (fig. 10).

#### **SETTLEMENT OF THE JASTORF AND THE PRZEWORSK CULTURES FROM THE PRE-ROMAN PERIOD, SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ (LUBOMIRA TYSZLER)**

##### **I. Preliminary information**

Settlement of the Jastorf and the Przeworsk culture from the younger pre-Roman period at Witów, site 14–15, has been identified on the area of 145 ares within the boundaries of hectares: I, II, III, IV, V, and VII. 728 features are dated to the above period, out of which 217 are dated by means artefacts. The remaining ones have been attributed to the period on the basis of stratigraphic analysis (fig. 11).

##### **II. Typological and cultural-chronological analysis of movable artefacts**

Movable artefacts consist of c.a. 14 500 pottery fragments (4150 fragments of features, 1350 fragments obtained from the bottom of humus and cultural layer), 24 ceramic circles and plates, two (?) clay spoons, two spindle whorls, several dozen stone vessel forms and remains of animal bones.

###### **1. Metal artefacts**

Metal artefacts included a fragment of a spear/javelin? head of unidentified type, probably from the younger pre-Roman period (fig. 60:2). The neighbouring cemetery at Witów, site 8, has yielded weaponry elements, including spear/ javelin ? heads of types B, C, H, L, M, after P. Łuczkiwicz (2006), from phases A1-A3 (see J. Rozen 2007).

###### **2. Ceramic artefacts**

With the absence of metal artefacts or other objects with diagnostic features, chronological considerations are based on only one category, i.e. pottery. Ceramic artefacts are heavily fragmented, which is typical of settlements.

### 2.1. Typology of ceramic artefacts

The suggested typological division of pottery is based on an integrated analysis of technology, function and morphological forms of particular vessels and other artefacts (fig. 12–23). The following functional-morphological groups have been distinguished: household vessels (G – pots, pot-like forms), tableware (W-vases, vase-like forms, M – bowls, bowl-like forms, K-mugs, cups and similar forms), special forms of vessels (NM – miniature vessels, NS – sieve-like vessels), other objects (LG – ceramic spoons, PG – spindle whorls, KG – ceramic circles). A limited number of completely reconstructed vessels made it necessary to base the division on partially reconstructed specimens. Larger vessel forms (e.g. pots) had to be identified mainly on the basis of distinctive features of the preserved upper parts of vessels, as the parameters of the lower parts were impossible to obtain.

Pots (kitchen pots, pots with a function of small storage vessels) consist of unipartite, bipartite and tripartite forms, which fulfil conditions  $R1 < R3$  and  $H1 > R1$  ( $H1$ , as a rule, putative).

The most diversified group consists of bipartite pots, which can be divided into types GD.I–XIII with and without thickened rims (fig. 12–13). Tripartite forms are represented by two types GT.I – II (with subtypes). Similarly, unipartite forms occur in two types GJ.I – II (fig. 14).

Vase-shaped vessels include forms which fulfil conditions  $R1 > H1$  (c.a. 1.2–1.3), with  $R1$  similar to  $R3$  (c.a. 0.95–1.06). Vases and large mugs have a diameter of c.a. 18–27 cm. The height of better preserved specimens ranges from 15 to 20 cm. The suggested typology is based on the division into bipartite types WD.I–IV (some with subtypes) and a tripartite type WT.I. Types and subtypes have been identified on the basis of reconstructed vessels and larger fragments of rim segments (fig. 15).

Bowls consist of wide-mouthed forms which fulfil conditions  $R1 > H1$ ,  $R1 \geq R3$ , occasionally  $R1$  not much  $< R2$ . The average bowls have a diameter of c.a. 18–28 cm, the large ones range between 30–33 cm, and the smallest ones between 12–13 cm. They include shallow forms with opened up rims and deep, vase-like forms. The vessels have been divided into bipartite bowls, types MD.I – V and unipartite bowls, types MJ.I – V (fig. 14, 16).

The group of mugs (mugs, cups) consists of forms with and without handles, whose presence or absence did not have any impact on the function of vessels. The diameters range from 10/15 cm to 16/17 cm. Indicator  $R1:R3$  equals 0.85–1.06, whereas  $R1:H1$  – rarely calculable, equals 1.07–1.16. Four types of bipartite (types KD.I – V) and three types of unipartite mugs (KJ.I – III) (fig. 17) mugs have been distinguished.

The group of miniature forms consists of only one hemispherical vessel, with a diameter  $R4$  3 cm (type NM.I) – an equivalent of bowl MJ I.1–2 or a mug KJ I.1 (fig. 18).

Sieve-like vessels represent rare forms. The following types have been distinguished: NS. I and NS. II (fig. 18). One of them is represented by a bottom part of a bowl (type NS. I), cylindrical in the lower section, with a diameter  $R4$  9.3 cm, and a row of holes above the bottom and in it (fig. 18; 65: 5–6).

Micromorphology refers to rims with mouths, bottoms, sections near the bottoms and handles, which occur in different types of vessels.

Mouth rims have been divided into the following types: WGF.1–8 – prominent, with thickened and faceted rims, WG.1–6 – prominent, thickened rims, not faceted, W.1–2 – prominent, not thickened rims, N.1–3 – not prominent, thickened or not thickened rims (fig. 19–21). Additionally, the way of thickening the rims has been divided into: a) multiple facets, b) sharp facets, w) outward facets (types *a* and *b*, after T. Dąbrowska 1998).

The bottom and bottom parts have been divided into: type DP – straight, including variant P.1–3 (fig. 22:1–19, 22–23, 25–28, 32–35); type DW – prominent, including variant W.1–2 (fig. 22: 20–21, 24, 29–31, 36–37); type DZ – rounded (rare). The thickness of the bottoms is a secondary feature (fig. 22).

Some types of vessels are equipped with handles, usually broken off the main vessels and found lying separately. Taking into account their stylistic features and morphology (roller or tape-like), they have been divided into the following types: type U.I.1–2 – narrowed and faceted handles, type

U.II – narrowed and faceted handles, knee-shaped, type U.III.1–2 – handles with no faceting or narrowing (fig. 18).

Decorated artefacts are scarce and have been divided into three groups: carved-pierced decoration (group Z.I), carved (group Z.II) and moulded (group Z.III) (fig. 23). Delicate carved-pierced motifs in the shape of parallel lines (type Z.I. 1–5) can be found on Przeworsk vessels with shiny surfaces, e.g. vases/mugs, mugs (fig. 34:8, 10; 38:6; 51:8; 53:8; 58:5). Group III is characterised by a moulded motif (type Z.III.2.1) with finger-fingernail holes (fig. 28:5; 29:7). It is typical of pottery inspired by the stylistics of the Jastorf culture and pottery of Kraghede type (T. Dąbrowska 1994, p. 80, fig. 1:a; H. Machajewski, R. Pietrzak 2004, p. 95, motif of type A).

Other ceramic forms mentioned above are represented by one spoon with a straight handle of type LG.I and two bi-conical spindle whorls of type PG.I (fig. 18).

Circles and ceramic plates attributed to type KG.I–IV include forms of similar size (fig. 18). Diameters range between 3.3–5.8cm, rarely c.a. 8.5 cm. Artefacts of this type are frequently found in Kuyavia, in the zone of the Bzura river basin (Izdebn Kościelne site 1, Biskupice site 1, Antoniew site 1, Różyce site 5, Witów site 8) and along the line of the middle Vistula river and the Bug river. Their way of making is, by many researchers, linked with the influences of the Jastorf culture and the contacts on the Bastarnae trail.

## 2.2. Cultural-chronological description of ceramic artefacts

Cultural identity and dating of the settlement at Witów, site 14–15 are determined on the basis of technological and formal-stylistic features of vessel pottery – major artefacts on the site. Comparable materials are yielded by sites from the basin of the Bzura river and further areas of the Polish Lowland. The materials come from older excavations of the Przeworsk culture, e.g. at Antoniew site 1, Kuznocin site 1, (J. Skowron 2006), Różyce site 5, (H. Wiklak 1995), and new, multi-faceted investment research of the settlement at Pęcławice, site 5 (L. Tyszler 2011) and the cemetery at Witów, site 8 (J. Rozen 2007). The previously mentioned cemetery at Witów, site 8 is adjacent to the settlement at Witów, site 14–15, and has yielded the largest number of comparable vessel forms. Materials from western Mazovian Przeworsk cemeteries at Kamieńczyk, site 1 (T. Dąbrowska 1997) and Oblin, site 5 (K. Czarnicka 2007) were also helpful in the dating of particular vessel forms.

Essential comparable materials, which enabled the description of cultural relationships with the Jastorf culture were provided by multi-faceted investment research of the settlement at the cluster – Poznań-Nowe Miasto (H. Maciejewski and H. Pietrzak 2004) and the settlement at Izdebn Kościelne, site 1 in western Mazovia (H. Maciejewski and J. Rozen 2016).

Ceramic artefacts from the settlement at Witów, site 14–15 mainly represent the Przeworsk culture pottery from the younger pre-Roman period.

The suggested typology takes into consideration the main pottery forms with prominent and faceted rims (variants *a* and *b*), typical of the first phase of pottery of the Przeworsk culture, after T. Dąbrowska (1985, plate I–IV). It includes diversified pots with bellies set above the half size, or at half size of a vessel (type GD.I, GD.II) and pots with handles (GD.III). Pot-shaped vessels (GD.IV) include wide-mouthed, tall forms and squat ones (bottom parts are reconstructed on the basis of analogies, inter alia, from Kamieńczyk, site 1). A different type with variants is represented by forms with slender bellies (GD.V) and differently shaped mouths. There are also forms similar to reversely pear-shaped vessels (GD.VII.1) with prominently thickened rims. The set of forms includes tripartite vessels with variants, and differently shaped necks (GT.I–II) which have numerous analogies at cemeteries, such as Witów, site 8, Kamieńczyk, site 1.

A small group of vessels is formed by vases (vases, large mugs), both bipartite (WD.I–III) and tripartite (WT.I). They also include large mugs (diameter c.a. 25 cm) with narrowed handles (U.I.1), decorated with carved-pierced motif (Z.I.1.5).

Sets of smaller forms include unipartite and bipartite bowls and mugs (mugs, cups). The presence or absence of handles in the case of forms described as mugs does not have any influence on their function. The unipartite forms, described above do not indicate precise chronology. The

most characteristic vessels are bowls with a knee-bent belly, in a more or less prominent shape. (MD.II.1–2). Rare objects include bowls with heavily thickened rims and slightly bent mouths (MD.V.1). Mugs represent vessels with rounded bellies (KD.I), occasionally S-shaped and cylindrical, narrowed down towards the bottom, occasionally decorated (KD.II). There are also vessels in the shape of flowerpots (KD.III).

The pottery in question is characterised by delicate decorative, carved-pierced motifs, present on some specimens of vases/mugs and mugs. They have a form of parallel lines or a motif of a “battlement-shaped” meander (group Z.I).

Pottery from the site mainly represents the first pottery phase of the Przeworsk culture, i.e. phases A1-A2 of the younger pre-Roman period (see T. Dąbrowska 1988, pp. 27–29, plate I-IV).

There is scarce material with features of phase A3 of the younger pre-Roman period, i.e. a mug with a reduced, weakly faceted rim (type KD.I; fig. 55:2), a bowl with a vertical mouth and a thickened rim (type MD.V.3), and a small bowl with a thickened and rounded rim (type *c* after Dąbrowska (fig. 32:5).

Pottery from Witów, site 14–15, is not homogenous, as it includes material connected with the Jastorf culture. It is represented by vessels of type GD. IX-XI (fig. 13) with vertical mouths type G5-G6 (fig. 21: 1–3). Equivalent forms can be found in the material from the Jastorf settlement at Izdebnko Kościelne, site 1 (H. Machajski, J. Rozen 2016, plate 46:8, 72:6). Among those, type GD.X is additionally equipped with a moulded band at the place where the mouth and belly join (fig. 28:5; 29:7). In the settlement materials found in Greater Poland at Poznań-Nowe Miasto, similar pots are connected with an older tradition of the Jastorf circles, which preceded the Przeworsk culture and which coincides with the end of HD3 of the older pre-Roman period and the beginning of phase A1 of the younger pre-Roman period, (LT B2-LTC1) (see H. Machajewski, R. Pietrzak 2004, plate XII: 1–4). Similarly, some variants of bipartite bowl types MD.I, MD.II.1, MD.III (fig. 16; 41: 3–4) have their equivalents among bowls linked with the Jastorf circle, found at Brześć Kujawski, site 3 and 4, settlement phase (LT B2-LTC1), which preceded the formation of the Przeworsk culture (see M. Grygiel 2004, fig. 4:c, 5:a).

Stylistic features of the Jastorf culture can be seen in many characteristically shaped rims (fig. 27: 2, 29: 5, 30: 4, 46: 8, 51: 9, 52: 1, 53: 6, 58: 10). The mouth of type F4 (fig. 19; 43:5) seems to reflect the combination of the Jastorf tradition of rim making (see H. Machajewski, J. Rozen 2016, plate 41, variant *c*) with the Przeworsk culture stylistics of faceting.

The cultural context described above is also represented by a ceramic spoon of type IV, variant 3–4, after A. Michałowski (2004), unearthed at Witów (fig. 41:1). Also, numerous ceramic circles (KG.I-IV) found at the settlement should be linked with Jastorf influences, and more broadly with the Bastarnae trail and the formation of the Poieniști-Lukaševa culture (T. Dąbrowska 1994, p. 74–74; R. Prochowicz 1999, pp.308–309, 311, fig.1).

To sum up, vessel pottery excavated at Witów, site 14–15 can be divided into two major trends: one representing the Jastorf culture, which originated in the older pre-Roman period and the other one representing the Przeworsk culture, possibly as early as phase A1, but mainly phase A2 of the younger pre-Roman period.

### 3. Stone tool forms

The settlement has yielded 88 stone tool forms, mainly obtained from features (85 artefacts). They represent the following forms: unipolar, bipolar and multipolar hammer stones, two-functional hammer stones-grinders, grinders of various size, grinders-querns, querns, polishers, a whetstone (plate 1; fig. 66–68). Most artefacts were used as multi-functional tools. The raw material was exploited with the morphometric technique, and more rarely the technique of intentional formation. The unearthed tool forms represent the following rock material: sandstone (35.2%), granitoid (27.3%), gneiss (15.9%), leptite (5.7%), quartzite (4.5%), amphibolites (4.5%), porphiroid (3.4%), dioritoide (2.2%) and ignimbrite (1.1%) (see Krystek, appendix).

The artefacts were found in utility ponds (features 475, 482, 490, 552, 554, 808, 962, 733), in wells (features 777, 505), several utility or storage pits (features 77, 306, 372, 412) and hearths (fea-

ture 380). The general application of stone forms was food processing and production purposes (hammer stones, grinders, bases), sharpening metal tools (whetstones, bases) and tool making. A considerable number of stone artefacts found in utility ponds may imply that they were used for processing (threshing) of flax and cannabis straw.

### III. Description of immovable features

The artefacts of the Przeworsk culture settlement at Witów, site 14–15 have been classified on the basis of their morphological, construction and functional features. The suggested **morphological-functional** classification includes the following categories: 1/ over-ground buildings, 2/ recessed buildings, 3/ lime kilns, 4/ wells, 5/ utility ponds, 6/ hearths, 7/ storage and utility pits, other, 8/ pits, post pits.

#### 1. Residential and utility constructions

Residential and utility features are the least recognised in the excavated section of the settlement. It is likely that the residential zone was situated in the unexplored, eastern part of the site, beyond the motorway area.

It can be assumed that features no 7 and 17 (ha III, ares 58–59) are of residential-utility character. They cover an area of 19.2–22.4 square metres and 25.2 square metres respectively (fig. 70: 1–2; 132). The complex of post pits (features 362, 363, 356, 693?) can be reconstructed as a building. It is located next to an elongated cellar pit (feature 361; ha III, ares 18, 28). Feature no 388 with a hearth no 380 and a cluster of post pits (ha III/ ares 95–96, ha V/ ares 5–6) are of similar residential-utility character. The unearthened over-ground construction (?) had a regular, quadrangular layout, measuring 6.2–5.8m × 5.2–5.1m and it covered an area of c.a. 29.2 square metres (fig. 132).

#### 2. Hearths and stoves

The number of features recognised as hearths or stoves is relatively small (c.a. 45 features; plate 2). The remains of hearths with or without a cairn are quite shallow, maximum 0.4 m deep. Only a stove with the remains of a clay casing was 0.68 m deep (no 576; fig. 73:1). The unearthened hearths had a different function, depending on the context in which they were found 1/ within the boundaries of a residential feature (no 374, 375, 378, 380; plate 2: 2), 2/ in the vicinity of utility features (no 578, 780; plate 2:4), 3) in the production zone (see plate 2:8–15), elongated hearths in the zone of a utility pond).

#### 3. Storage, utility and post pits.

The most numerous category of artefacts are storage and utility pits, as well as garbage and post pits (plate 3). They are diversified in terms of size and morphology. It is difficult to determine their primary function, as they were largely transformed. The presence of shelters was also observed. They were supported by posts and shielded the pits' contents. A good example is pit no 565 (ha V, are 5) with a cluster of post pits. These are mainly single pits. Clusters of pits situated close to one another, and occurring as one zone, are rare (e.g. features 133, 166, 172, 188, and feature no 178 – close to a lime kiln, fig. 81:1; 132).

#### 4. Wells and utility ponds

The excavated section of the settlement of the Przeworsk culture also consisted of wells and utility ponds. They are located on its northern, north-western (13 features) and southern outskirts (fig. 111).

The above mentioned categories were distinguished on the basis of their construction and for height. It does not mean that features with wicker work inside, could not be used for drawing water. Recent studies describe the function and the significance of the aforementioned features in the economy of pre-Roman communities.

Nine features categorised as wells (no 343, 463, 494, 504, 529, 580, 590, 747, 777, plate 4) and ten features described as utility ponds (no 475, 482, 490, 552, 554, 733, 808, 901, 960, 962, plate 5) underwent analysis (fig. 82–91, 92–101).

The wells at Witów, site 14–15 were set up according to the same procedure. Firstly, the digs were made – wide at the top (usually 1.6–2.0 m, more rarely 2.7–3.3 m) and narrow at the bottom (cylindrical, cylindrical-quadrangular), which were then equipped with casings. The depth of

the unearthed features ranged from 0.7m to 1.4m (from the level of unearthing). The well shafts reached the top water-bearing layers at the level of 108.25–108.07m above sea level.

The well casings had different constructions: 1/ box-like (features no 343, 494), 2/ made up of vertically positioned wooden planks, dug in the ground (features 504, 747, 777), 3/ made up of a hollow tree trunk (oak), chopped into vertical pieces (no 590). The casings were frequently supported by cairns (features no 343, 504, 590, possibly 494). It was possible to observe that the casings had been repaired, i.e. the digs were supported by stones to protect it from land sliding (feature no 343), or some parts of a wooden casing were replaced by the new, stone structure (feature no 504). Wooden casing elements of old wells were frequently re-used (feature no 529, 580, 747, 777) in order to construct new features(?), repair the old ones, if the condition of timber allowed it, or possibly for some other purposes.

Utility ponds for soaking flax and cannabis were set up in a similar way to wells. The digs had large diameters at the top – from 1.7 to 2.5 or even 2.9 m and were narrow at the bottom, with walls either more or less steep. Recessed digs ranged from 0.7 m to 1.0 m. They reached ground water, recorded at the level of 108.2–108.14 m above sea level, which enabled the flooding of pit bottoms

The baskets found in the utility pits were oval or oval-circular, in which case they measured between 1.3–1.05 m × 1.1–0.8 m, or completely circular with a diameter between 1.0–0.85 m × 0.95–0.8 m. Relatively short, woven baskets, between 12–20 cm large, were made of twigs, directly dug into the ground. These were 11–15–16 sharpened sticks, c. e. 25–18 cm in length.

The obtained results of dendrochronological research shed more light on the research in question (see M. Krąpiec – appendix). The wood used for the construction of well casings included: oak, pine or alder (feature no 504, 747, 777), and possibly birch (feature no 494). An unusual casing (feature no 590) was made from a bulky, hollow oak trunk, whose estimated age was 144 years at the time of felling.

The baskets found in the utility pits were made of three types of wood: construction sticks from oak, birch and alder (features no 490, 552, 733, 960) and alder, willow and birch twigs for weaving. Pine tree planks (feature no 962) were additionally used for strengthening or repairing the construction from the inside. They may have been obtained from one of the abandoned wells. One such construction element (feature no 554) was made of pine wood.

It has been observed that some wells were deliberately filled after being abandoned. The bottom of the deepest one (feature no 590) was filled with stones for safety reasons (fig. 88). Bottom sections of the features were filled with sediment with a large amount of organic remains, which coloured the layer brown. The changing level of ground water caused sedimentary precipitation of sand, visible in the bottom layers.

The method of drawing water from the well has not been sufficiently described. The steps, observed in some features could have been used to come nearer to the source of water. In the case of feature no 504 we can presume the presence of a crane, with a drinking trough (?) (feature no 515) within its reach, measuring 1.78×1.1 m, and between 0.1–0.2 m deep.

Next to one of the utility ponds (feature no 490) there were traces of an irrigation system (feature no 480), preserved in the form of a fragment of trough-shaped piece of wood, dug at c.a. 20 cm to the ground (fig. 94). The preserved element was c.a. 75 cm long and 11–13 cm wide.

## 5. Lime kilns

The excavated section of the settlement at Witów consisted of eight preserved lime kilns, or their remains, i.e. features 150, 163, 167, 178, 621, 636, 860 (plate 6, fig. 102–109; 111). They were found in the south-western zone of the unearthed section of the settlement.

The excavated lime kilns were two-storey constructions, whose over-ground chambers in the form of non-permanent, clay-wooden structures, were totally destroyed. The bottom chambers were made up of stones of various size, with smaller erratic stones put in the empty spaces between them. Mouldable clay strengthened the construction. It was also used for chamber bottoms in most features. Bottom chambers had an oval-circular or circular layout, and measured between 1.9/2.0–1.5/1.7/2.1 m. They were c.a. 0.6–0.9 m deep.

One of the lime kilns (feature no 43) had remains of a kiln channel, 1.4–1.8 m long (depending on the method of measuring), bored to the depth of 0.56–0.25 m – the place where it reached the stone chamber (fig. 102). It is an example an air circulation method used during burning lime in a two-chamber kiln. Comparative data are provided by finds from other sites (L. Tyszler 2008; 2015; A. Michałowski, A. Sobucki 2011).

All lime kilns had discernible traces of foundation digs, not much bigger than the stone constructions of the kiln chambers. They foundations were dug in the undisturbed geological layer of sand, and only in one case – in the layer of clay (lime kiln no 636; fig. 108). It has been observed that kiln chambers were partly (features 163, 167, 621, 636), or completely (feature no 621) dismantled in order to build or repair other ones(?). Stone tool forms were also found on the site.

The unearthed lime kilns represent type II (lime kilns with recessed construction). They are divided into: subtype and variant II.1a with chambers, whose walls are made of stone and the bottom completed with clay ( features no 43, 150, 163?, 167), and possibly subtype II.2a with walls and bottom made of stone (features no 178, 860) (after A. Michałowski, A. Sobucki 2011).

Some lime kilns had light shelter constructions, whose remains have the form of post holes. The shelters may have covered an area of 11.25–17.5 square metres. There is no agreement among researchers as regards the interpretation of the aforementioned kiln shelters (L. Tyszler 2008; A. Michałowski, A. Sobucki 2011; G. Domański 2015).

The lime kilns were accompanied by clusters of pits of production character, which formed functional zones. The pits are not very characteristic. They are preserved at the bottom level (at the depth between 0.15–0.3m, more rarely 0.4–0.5m ). They may have been used as storage features, either to store raw material for burning lime or to keep the burnt product (see A. Michałowski, A. Sobucki 2011; G. Domański 2015). Some, not numerous, features can be described as hearths (e.g. features no 53, 878).

At the basin of the Bzura river, comparative data for the research into the construction and use of lime kilns can be obtained from the settlements at Kolonia Orenice, site 2–4, district of Łęczycza (younger pre-Roman period) and Wiktorów, site 1–4, district of Zgierz (Roman period) (W. Siciński, W. Stasiak 2004; J. Moszczyński 2010; L. Tyszler 2015). Comparative research was also carried out with reference to the Przeworsk culture sites, with lime kilns from other regions.

#### IV. Inhabitation zones and economy

The least recognised clusters of features at Witów, site 14–15, are connected with inhabitation and utility zones. It can be assumed that they were located beyond the excavated section of the settlement on a more elevated slope of the valley. Three clusters can be distinguished: 1/ features no 7 and 17 (ha III/ares 57–59, 67–68), 2/ features no 199–200, 500 and 505 (ha III, ares 99–100, ha IV, ares 9–10, 20), 3/ feature no 388 (ha III/ares 95–96, ha V/ares 5–6), (fig. 111,132). The usable area of the buildings could have reached c.a. 19.2–29.2 square metres.

In the south-western section of the settlement lies the zone of lime production with seven stoves (no 43, 150, 163, 167, 178, 621, 860), formerly situated on the outskirts of the settlement, and covering an area of c.a. six ares (ha III, ares 55, 65, 75, 76, 77, 77/87, 88) (plate 7, fig. 111, 132). The eighth stove (no 636) is located outside the cluster (plate 7, fig. 132). The infrastructure was formed by features with auxiliary functions (e.g. storage pits). The stoves functioned simultaneously, which is attested by dismantled the stone stove chambers, either completely (no 621), or partly (stoves no 163, 167, 636). The number of stoves indicates production of lime on a large scale.

Another crucial branch of economy was cotton making. At the low-lying zone of the Malina river valley in the north-western part of the settlement, we could find a cluster of utility ponds with braid wicker constructions (no 475, 482, 490, 552, 554, 733, 808, 901, 960, 962) (plate 6, fig. 111, 132). They were used for soaking straw at the initial stage of raw material processing. The analyses confirmed the presence of flax and cannabis in one utility pond (no 490) and in one well (no 590). The process of soaking straw required a complete change of water, either once or twice, due to its excessive acidification. Next to one of the utility ponds (no 490) there were traces of a drainage system (no 480) in the form of a fragment of hollowed out piece of log (fig. 94).



The presence of spindle whorls (ha III/ares56 and 59) in the zone of residential-economic character proves yarn spinning. However, no traces of loom have been discovered.

Despite the proximity of the Malina river, the settlers at Witów, site 14–15 set up their own water intakes (wells no 343, 463, 494, 504, 529, 580, 590, 747, 777), (plate 5, fig. 111, 132), which enabled them access to clean drinking water, regardless of temporary frosts, droughts, or river flooding. Shallow utility ponds could not be used as water intakes. This was caused by the harmful impact of acidified water on the environment.

The proximity of forests and extensive meadows was conducive for cattle and pig grazing. Osteological data confirm the presence of the following domesticated species: cattle (51%), horse (15%), pig (11%), sheep and sheep/goat (20%). The percentage of wild animals in the diet was minimal (5%). The breeding of cattle can be connected with some wells built on the outskirts of the settlement and on the border with meadows.

Arable fields must have been located in the close vicinity, or a little further. Agriculture is confirmed by the presence of edible plants, such as: millet, barley, wheat and other undetermined cereals.

The settlement at Witów, site 14–15 stands out from other settlements at the Bzura river basin, due to the presence of professional lime kilns, a zone of flax processing with utility ponds, and a considerable number of wells. The number of the unearthed features and the spatial arrangement of the settlement attest a high level of specialisation of its dwellers in some fields of production, which was continued by several generations.

## V. Relative and absolute chronology

The assemblage of artefacts from Witów is not homogenous in terms of cultural attribution. It consists of Jastorf materials with features typical of the older pre-Roman period and younger pre-Roman period, from the times preceding the Przeworsk culture. Moreover, some materials younger than the ones mentioned above, are clearly linked with the Jastorf culture (e.g. micromorphology of rims, belly shapes). The stylistics of the Jastorf culture spans the period between late LT B2 (turn of phases LT B2/LT C1), throughout phase LT C1 until the turn of phases LT C1/LT C2, respectively from the end of phase Jastorf c – during phase Ripdorf.

It should be concluded that a vast majority of artefacts from Witów, site 14–15 is typical of the Przeworsk culture, mainly of its first ceramic phase (see T. Dąbrowska 1988, pp. 27–29, plate I-IV). They include diverse forms of bipartite and, to a lesser extent, tripartite forms, such as pots, vases, bowls and mugs. Vessel decoration is scarce, and so is the percentage of decorated forms in the assemblage. On the basis of the description of vessel forms, particularly their micromorphology and stylistics, it can be assumed that the Przeworsk culture artefacts span the period between the end of phase A1, throughout phase A2, until the beginning of phase A3 of the younger pre-Roman period.

It is thought that Jastorf cultural tradition in vessel making at Witów, site 14–15, was still present during phase A2 of the younger pre-Roman period, i.e. until the end of the settlement's functioning.

Relative dating should be collated with radio-carbon dates obtained for six features, there wells (no 494, 777, 590) and three utility ponds (no 490, 960, 733) (plate 7). The most reliable dates are the ones that have been obtained for the utility pits: no 490 (2145 ±30 BP), no 960 (2125 ±30 BP), no 733 (2125 ±30 BP). The analysed timber samples were maximum over a dozen years old at the time of tree felling. However, casing well no 590 (2255 ±30 BP) was made of a several hundred – year – old oak (casing timber was 144 years old at the time of tree felling), so the “effect of old timber” should be taken into consideration.

It is likely that the oldest settlement level is connected with well no 777 (2180±30), which was set up during Ripdorf phase or phase LT C1 (second half of the 3rd c. BC). Its fill contains pottery with Jastorf culture features (e.g. pot of type GD.IX).

Well no 590 can be linked with Ripdorf phase or the period from c.a. the turn between phases LT B2/LT C1 and a part of phase LT C1 (3rd c. BC), if we assume that the date of felling the oak tree and making the casing is the same. Judging by its robust construction and the material found in its fill (e.g. pots GT.I, GD.VIII, mug KD.I) the well was abandoned after being used by several generations, during the development of the Przeworsk culture.

Other features, such as: well no 494 and utility ponds no 490, 960 and 733 are dated to Ripdorf phase, i.e. the end of phase LT C1 and most of phase LT C2 (coinciding with the younger part of phase A1 of the younger pre-Roman period). The time when well no 494 was set up and used, coincides with the formation and development of the Przeworsk culture. The youngest features, i.e. utility ponds no 733 and 960 can be dated to the phase of settlement stability of the Przeworsk culture (in general phases A1-A2).

## VI. Summary

The discovery of two culturally different, settlement traditions: the older connected with the Jastorf culture and the younger with the Przeworsk culture is a very significant result of excavations at Witów, site 14–15.

The beginning of the settlement can be dated to phases LT B2-LT C1 and phase LT C2 (the end of phase Jastorf c and Ripdorf phase of the older and younger pre-Roman period), lasting until the end of phase LT D1 and the beginning of phase LT D2 (phase A2, transitory phase A2/A3 of the younger pre-Roman period respectively). In terms of absolute chronology, this would coincide with the period between c.a. 3rd c. BC and c.a. the middle of the 1st c. BC.

The presented chronology coincides with the results of C14 analyses for several wells and utility ponds (see plate 1). They indicate the period of their construction, which, basing on absolute dates, spans the period between the 2nd half of the 3rd c. BC and the 1st half of the 2nd c. BC. The oldest features were set up during the Jastorf culture settlement, whereas the youngest ones – during the phase of settlement stability of the Przeworsk culture.

It is worth observing that the foundation of the multi-cultural settlement at Witów, site 14–15 coincides with the dynamic dissemination of Jastorf tradition (LT B2-LT C1) and the gradual development of the Przeworsk culture (LT C1 – LT C2) on the area of the Polish Plain, including the Bzura river basin. The Przeworsk culture cemetery at Witów, site 8, set up in phase A2 was connected to the Przeworsk culture settlement in question (from the younger stage / end of phase A1) in the period between phase A2, until the turn of phases A2/A3 of the younger pre-Roman period.

## EARLY-MEDIEVAL SETTLEMENT, SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ (ANNA NIERYCHLEWSKA)

The excavations at Witów, sites 14–15, have yielded 52 immovable features and 891 artefacts from the last phase of the early Middle Ages and the early phases of the late Middle Ages. Both, the features and the artefacts were found in the middle of hectare V and VI, in the stretch of land on the Malinka river.

The assemblage of movable material was dominated by vessel pottery. Other artefacts included: a clay spindle whorl, fragment of a whetstone and a wooden whisk. The pottery mainly consisted of S-shaped pots (type A, nearly 67% of the assemblage). Other forms included: pots with a cylindrical neck, pots with a distinct neck, barrel-shaped pots, as well as little pots, jugs and lids (fig. 112; 114–121). The scarcity of vessel forms, poor decoration, sloppy way of vessel making and firing prove that the vessels were produced for local use in a village, where the old tradition of vessel making was retained until the late Middle Ages.

The features include 13 hearths, connected with production activity, 2 wells, 5 pits in the form of recessed remains of overground buildings, 18 utility pits, 11 post pits, one cluster of pottery and 2 extensive zones, located in the recess of the cultural layer (fig. 113). The most interesting features include: a well with a log casing, measuring 1.15×1.10 m (no 940 – fig. 122), hearths with preserved remains of cairns, the largest of which measured c.a. 1.7–1.6 m × 1.45–1.2 m (e.g. no 980, 981, fig. 127:1–2) and the remains of overground buildings with surfaces, reaching 6.5–7 square metres (no 935 – fig. 123, no 934 – fig. 124: 1).

To sum up, it can be concluded that the pottery material and the cultural features recorded during excavations confirm the history of Witów, whose settlement on the Malinka river can be dated to the Middle Ages. Its beginnings coincide with the end of the 12<sup>th</sup> c. – beginning of the 13<sup>th</sup> c., and its main period of development occurred in the 13<sup>th</sup> c. In its final phase, c.a. 1<sup>st</sup> half of the 14<sup>th</sup> c., the village was most certainly moved to a higher, drier region.

**TRACES OF LATE MEDIEVAL, MODERN AND CONTEMPORARY SETTLEMENT, SITE 14–15 AT WITÓW, DISTRICT OF ŁĘCZYCA, PROVINCE OF ŁÓDŹ (ANNA NIERYCHLEWSKA)**

Excavations conducted at Witów, site 14–15, have yielded 7 modern features and 201 contemporary ones. They contained an assemblage of 480 artefacts, dated to the period between the late Middle Ages and the contemporary times. Movable artefacts mainly consisted of fragments of vessel pottery. There were also not numerous stove tiles and metal objects.

The assemblage of pottery consisted of 51 fragments of late-medieval vessels, dominated by sherds, made with the use of technology and paste recipes, which is typical of older periods (group A – nearly 67%). The artefacts prevail on sites which are dated to the turn of the early and late Middle Ages and the beginning of the late medieval period. There were also fragments of products fired in reduction atmosphere (group B), characteristic of the developed phases of the late Middle Ages. The sherds were only obtained from the arable layer and the top of the cultural layer located in the south-eastern part of hectare III. The assemblage may be dated to the period between the 14<sup>th</sup> c and the 1<sup>st</sup> half of the 15<sup>th</sup> c.

Modern and contemporary vessels are dominated by pottery fired in advanced oxidation atmosphere (nearly 74%). A considerable number (18%) constituted vessels fired in reduction atmosphere. There were very few examples of glazed products (3.6%), engobe or painted ones (4.4%). Vessel forms were limited to the basic types of kitchenware, i.e. pots, little pots, bowls, jugs and plates. The assemblage may be dated to the period between the 2<sup>nd</sup> half of the 16<sup>th</sup> c. and the 1<sup>st</sup> half of the 18<sup>th</sup> c. Modern period is also represented by 10 fragments of stove tiles and one metal object. Contemporary times are linked with not numerous vessel sherds – technological groups D, E and F and 7 metal objects (fig. 129).

Feature 459 is the most interesting modern feature (fig. 130: 3). It has an oval-rectangular layout, measuring 1.45×0.7 m and a rectangular cross-section, recessed at the depth of 0.62 m. It can be interpreted as a temporary place for drawing water. Its filling contained 2 complete jugs (fig. 130:1–2), which fill can be dated to the end of the 16<sup>th</sup> c. and the 1<sup>st</sup> half of the 17<sup>th</sup> c. Modern period is also represented by 2 pits, 3 post pits and the remains of a bonfire.

201 contemporary features are dominated by post pits (186 features), occasionally with preserved fragments of wooden posts and repair traces. 14 pits have also been distinguished. Most probably they had a function of garbage pits. One cluster of erratic stones was also found. The features were unearthed in the south-eastern part of hectare III of the site. Post pits formed clear patterns which confirm economic activity on the area, such as building wooden overground structures (sheds, shelters, fences). The remains of buildings were found in the vicinity of the current farmstead (III/49 and III/59). The traces of a fence were mainly visible on the line N-S, at the section of c.a. 80 m in length, leading from the courtyard towards the river.

The traces of settlement recorded at Witów, from the late Middle Ages to contemporary times, point to the fact that late medieval settlement was not of permanent character. Additionally, in modern and contemporary times the area underwent intensive agricultural exploitation.

**HISTORICAL SOURCES – WITÓW OVER THE YEARS (ANNA NIERYCHLEWSKA)**

The village of Witów has a confirmed medieval origin. It appeared in written sources for the first time in 1257, when the village was sold by the Łęczyca cup-bearer Mikołaj Bartłomiejowicz to the bishop of Włocławek – Wolimir for 30 silver grzywnas. The bishop of Włocławek did not own it long, as the village was not included in the list of bishop possessions of Łęczyca lands in 1332. At the end of the 13<sup>th</sup> c. or the beginning of the 14<sup>th</sup> c. it was taken over by a private owner. In the 2<sup>nd</sup> half of the 14<sup>th</sup> c. Witów belonged to Sławomir of Witów and in the 15<sup>th</sup> c. to Wilczek of Witów, to whom the village was handed over by his wife – Stanisława, Sławomir's daughter. The next owner of Witów was Jakub – Stanisława and Wilczek's son. In the 2<sup>nd</sup> half of the 16<sup>th</sup> c. the village still belonged to nobility. In 1576 the village was divided between brothers: Jan, Mateusz, Jakub – the sons of Peregryn Witowski and Marcin and Rafał Witowski. At the end of the 18<sup>th</sup> c. it belonged to the family of Błociszewski, coat of arms Ostoja.

**CONCLUSION (LUBOMIRA TYSZLER)**

Summing up the results of the excavations conducted at Witów on site 14–15, district of Łęczycza, province of Łódź it should be noted that they yielded artefacts which span the period from the Stone Age to the modern period. The oldest settlement, representing cultures of the Stone, Bronze and the early Iron Age was the least recognised and thus, it must have been located beyond the excavated area.

The most significant discovery is the settlement cluster of the Jastorf and Przeworsk cultures. The Jastorf culture spans the period between phase LT B2-LT C1 and the turn of phases LT C1/LT C2, i.e. late Jastorf c phase and Ripdorf phase respectively. It was still present during the Przeworsk culture, which is proved by Jastorf stylistic features on pottery in Przeworsk grave assemblages (phases A2-A2/A3, rarely A3) on the nearby cemetery at Witów, site 8. The domination of the Przeworsk settlement can be observed during phase A1 (younger section/ late phase A1) and primarily phase A2, until the turn of phases A2/A3 of the younger pre-Roman period, i.e. during phase LT C2-LT D2 until the turn of phases LT D1/D2 respectively. The results of absolute dating of the oldest features (wells and utility ponds) are of utmost importance. They span the period between the middle of the 3<sup>rd</sup> c. and the 1<sup>st</sup> half of the 2<sup>nd</sup> c. B. C.

The artefacts of the Jastorf and Przeworsk cultures, unearthed at Witów, site 14–15 prove that the Bzura river basin was a contact zones between the above mentioned cultures. The development of the Przeworsk culture during phase A1 resulted from the decrease of the Jastorf culture features and the dissemination of the Przeworsk ones.

Early-medieval settlement spans the period between the end of the 12<sup>th</sup> c. until the first half of the 14<sup>th</sup> c. It is proved not only by archaeological excavations, but also by written sources. The oldest written sources refer to a legal act of sale from 1257. Most of the time the village was owned by private owners. For a short time in the 2<sup>nd</sup> half of the 13<sup>th</sup> c., it belonged to the Bishop of Włocławek.

The excavations of the site prove that late-medieval settlement on the area was of no permanent character. During the modern period and contemporary times the settlement process considerably intensified.

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Ryc. 133. Witów, stan. 14–15, pow. Łęczyca, woj. łódzkie. 1–2. Obiekt 494 (studnia) – ha II, ar 83. 3–6. Obiekt 504 (studnia) – ha V, ary 9–10.

Fig. 133. Witów, site 14–15, district of Łęczyca, province of Łódź. 1–2. Feature 494 (well) – ha II, are 83. 3–6. Feature 504 (well) – ha V, ares 9 and 10.



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Ryc. 134. Witów, stan. 14-15, pow. Łęczyca, woj. łódzkie. 1-5. Obiekt 590 (studnia) – ha II, ar 87. 6. Obiekt 482 (studnia) – ha III, ar 6.

Fig. 134. Witów, site 14-15, district of Łęczyca, province of Łódź. 1-5. Feature 590 (well) – ha II, are 87. 6. Feature 482 (well) – ha III, are 6.

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Ryc. 135. Witów, stan. 14–15, pow. Łęczyca, woj. łódzkie. 1–5. Obiekt 490 (studnia) – ha III, ar 6. 6. Obiekt 552 (studnia) – ha I, ar 79.

Fig. 135. Witów, site 14–15, district of Łęczyca, province of Łódź. 1–5. Feature 490 (well) – ha III, are 6. 6. Feature 552 (well) – ha I, are 79.



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Ryc. 136. Witów, stan. 14-15, pow. Łęczyca, woj. łódzkie. 1-2. Obiekt 554 (roszarnia) – ha I, ar 79. 3-4. Obiekt 733 (roszarnia) – ha V, ary 17-18. 5-6. Obiekt 901 (roszarnia) – ha III, ar 16.

Fig. 136. Witów, site 14-15, district of Łęczyca, province of Łódź. 1-2. Feature 554 (rettery) – ha I, are 79. 3-4. Feature 733 (rettery) – ha V, are 17-18. 5-6. Feature 901 (rettery) – ha III, are 16.



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Ryc. 137. Witów, stan. 14–15, pow. Łęczyca, woj. łódzkie. 1–4. Obiekt 960 (roszarnia) – ha III, ar 15–16. 5–6. Obiekt 962 (roszarnia) – ha III, ar 14.

Fig. 137. Witów, site 14–15, district of Łęczyca, province of Łódź. 1–4. Feature 960 (rettery) – ha III, ares 15–16. 5–6. Feature 962 (rettery) – ha III, are 14.



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Ryc. 138. Witów, stan. 14-15, pow. Łęczyca, woj. łódzkie. 1-4. Obiekt 43 (wapiennik) – ha III, ar 55. 5-6. Obiekt 150 (wapiennik) – ha III, ar 77.

Fig. 138. Witów, site 14-15, district of Łęczyca, province of Łódź. 1-4. Feature 43 (lime kiln) – ha III, are 55. 5-6. Feature 150 (lime kiln) – ha III, are 77.

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**Ryc. 139.** Witów, stan. 14–15, pow. Łęczyca, woj. łódzkie. 1. Obiekt 163 (wapiennik) – ha III, ar 77. 2–3. Obiekt 167 (wapiennik) – ha III, ar 76. 4–5. Obiekt 178 (wapiennik) – ha III, ar 75.

**Fig. 139.** Witów, site 14–15, district of Łęczyca, province of Łódź. 1. Feature 163 (lime kiln) – ha III, ar 77. 2–3. Feature 167 (lime kiln) – ha III, are 76. 4–5. Feature 178 (lime kiln) – ha III, are 75.



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**Ryc. 140.** Witów, stan. 14-15, pow. Łęczyca, woj. łódzkie. 1-2. Obiekt 621 (wapiennik) – ha III, ar 88. 3-4. Obiekt 860 (wapiennik) – ha III, ar 65. 5. Obiekt 636 (wapiennik) i obiekty 634, 641-642 – ha VII, ary 90-100. 6. Obiekt 636 (wapiennik) – ha VII, ary 90-100.

**Fig. 140.** Witów, site 14-15, district of Łęczyca, province of Łódź. 1-2. Feature 621 (lime kiln) – ha III, ar 88. 3-4. Feature 860 (lime kiln) – ha III, are 65. 5. Feature 636 (lime kiln) and features 634, 641-642 – ha VII, ares 90-100. 6. Feature 636 (lime kiln) – ha VII, ares 90-100.

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**Ryc. 141.** Witów, stan. 14–15, pow. Łęczyca, woj. łódzkie. 1. Obiekty 380–388 – ha II, ar 9. 2. Obiekt 447 – ha III, ar 36. 3. Obiekt 872 (relikty budynku?) – ha III, ar 68. 4. Widok na wykopy – ha III, ar 4. 5. Widok na wykopy i obiekt 944 (palenisko) – ha VI, ar 10.

**Fig. 141.** Witów, site 14–15, district of Łęczyca, province of Łódź. 1. Features 380–388 – ha II, are 9. 2. Feature 447 – ha III, are 36. 3. Feature 872 (remains of building) – ha III, are 68. 4. View on the excavation – ha III, are 4. 5. View on the excavation and feature 944 (hearth) – ha VI, are 10.



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Ryc. 142. Witów, stan. 14-15, pow. Łęczyca, woj. łódzkie. 1-2. Obiekt 940 (well) – ha VI, ar 20. 3. Obiekt 935 (relikty budynku) – ha VI, ar 10. 4. Obiekt 459 (studnia) – ha III, ar 33. 5 – 6. Naczynia ceramiczne (obiekt 459) – ha III, ar 33.

Fig. 142. Witów, site 14-15, district of Łęczyca, province of Łódź. 1-2. Feature 940 (well) – ha VI, ar 20. 3. Feature 935 (remains of building) – ha VI, are 10. 4. Feature 459 (well) – ha III, are 33. 5-6. Ceramic vessels (feature 459) – ha III, are 33.