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Nucléus mésolithique de Glanów. Collection de Musée archéologique de Cracovie (grâce à l'aimable autorisation de Mirosław Zajac; photo par Agnieszka Susuł)

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Professor BOLESŁAW GINTER

THIS VOLUME OF *RECHERCHES ARCHÉOLOGIQUES, NOUVELLE SERIE*
IS DEDICATED
TO PROFESSOR BOLESŁAW GINTER
ON HIS 75TH BIRTHDAY

In 2013 Professor Bolesław Ginter turned seventy five, therefore his students, colleagues and friends, together with editorial board of *Recherches Archéologiques NS*, decided to dedicate to him the 5th and 6th volumes combined.

Professor is one of the most eminent and respected European authorities in the field of Paleolithic and Mesolithic issues. In 1961 he graduated from the Faculty of Philosophy and History at the Jagiellonian University, reaching his master's degree in archaeology. In 1966 he acquired his PhD and in 1973 he became Assistant Professor. In 1985 he received the title of Associate Professor and he obtained the full professorship in 1994. He is an educator and researcher, appreciated in many different centers. He has been conducting lectures at the University of Rzeszów since several years and in 2011 he was granted the *honoris causa* doctorate of the University of Wrocław. During his academic career he held scientific internships and invited lectures in the Czech Republic, Slovakia, Ukraine, Germany, Denmark, Switzerland and Italy. In the years 1984–1987 Professor Bolesław Ginter was Vice Dean of the Faculty of History and Philosophy at the Jagiellonian University and in the years 1990–1993 the Vice Rector. From 1985 to 2008 he was head of the Department of Stone Age Archaeology at the Jagiellonian University. Professor was a member of the Central Council of Science and Higher Education, and from January 3rd 2003, he served as Vice Chairman of the eighth cadency. Professor Bolesław Ginter conducted excavations at many sites. As particularly important we should mention the Balkan works, which embraced, e.g. Middle- and Upper Paleolithic sequences in Bacho Kiro and Temnata Caves. Last but not least were the works in Egypt, which initially had been performed in cooperation with the Centre of Mediterranean Archaeology of the University of Warsaw and subsequently were run by share of the *Deutsches Archäologisches Institut* and encompassed predynastic positions of El-Tarif and Armant (west and south of Luxor) and also Qasr el-Sagha (north of the Fayum Oasis). In the years 1994–2005 Professor co-lead the excavations in the Peloponnese, in the cave no. 1, in the Klissoura Gorge in Argolid. They led to the documentation of the first comprehensive sequence of the Neanderthal stratum in this part of Mediterranean Europe. From among Polish positions we should distinguish co-direction of a long-term, so far lasting project of the research of the main chamber of the Ciemna Cave in Ojców. He also directed an investigative project of the Committee for Scientific Research: “The site of the Magdalenian culture in Dzierżysław in Upper Silesia”.

Professor's studies enriched the Paleolithic flint workshops systematics by contents of fundamental significance. It can be best proven by the brilliant habilitation thesis titled *Wydobywanie, przetwórstwo i dystrybucja surowców i wyrobów krzemienych w schyłkowym paleolicie północnej części Europy środkowej* from 1974 and the monograph from the same year *Spätpaläolithikum in Oberschlesien und im Oberen Warta Flussgebiet*. Among other monographs, it would be hard not to mention about such important, co-edited

items like *Excavation in the Bacho Kiro Cave (Bulgaria)*, *Predynastic Settlement near Ar-mant, Temnata Cave. Excavation in Karlukovo Karst Area, Bulgaria* (1992, 1994, 2000), and also co-authorship of an eminent and repeatedly resumed academic textbook *Technika obróbki i typologia wyrobów kamiennych paleolitu i mezolitu* (1975).

Professor Bolesław Ginter has published a total of 170 scientific items. He is the author, co-author or co-editor of 14 books. He supervised 19 masters and 5 doctors. He has participated in the sessions of numerous scientific bodies on the electoral basis. Professor is a deputy president of the Committee of Prae- and Protohistoric Sciences Polish Academy of Sciences, a member of the board of Archaeological Commission of the Kraków Branch of Polish Academy of Sciences, and member of following Commissions of the Polish Academy of Art and Sciences: Paleogeography of Quaternary, European Affairs, Praehistory of Polish Carpathians. He is deputy chairman of the XXXII Commission of *Union Internationale des Sciences Préhistoriques et Protohistoriques*, member correspondent of *Deutsches Archäologisches Institut*, member of International Association of Egyptologists and American Academy in Rome.

In recognition of his services, Professor Bolesław Ginter was six times individually awarded and twice as a team by the Minister of Education. Eight times he received the Award of the rector of the Jagiellonian University. He was honored by the Knight's Cross and Officer's Cross of the Order of Polonia Restituta and the Medal of the National Education Commission.

Paweł Valde-Nowak

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Paweł Valde-Nowak¹, Anna Kraszewska¹, Damian Stefański²

Arch-backed and Tanged Point Technocomplexes in the North Carpathian zone

Abstract: The goal of this work is to review the present discussion and the perspectives of the Late Palaeolithic in the northern part of the Western Carpathians and in the Northern Subcarpathia region during the Allerød and the Younger Dryas oscillations. The area of Subcarpathia, especially dunes of the upper Vistula valley, has been explored many times since the second half of XX century (e.g. Kraków-Borek Fałęcki, Kraków-Kobierzyn). It brought numerous collections proving dense Late Palaeolithic settlement around Kraków. Although the Tanged Point Technocomplex (TPT) prevailed, traces of Arched Point Technocomplex were also reported. Since the 80's, methodological researches in the northern part of The Western Carpathians have unexpectedly revealed rich remains of the Late Palaeolithic settlements. It mainly represents the APT settlement (Sromowce Niżne, Nowa Biała). The recent progress has been achieved as a result of extensive rescue excavations which brought a number of methodically acquired lithic assemblages (e.g. Kraków-Kurdwanów, Kraków-Bieżanów, Mucharz). This issue has boosted a discussion on the Late Palaeolithic settlement in the region. The discussion is focused on the techno-typological aspect of a material culture, detailed analysis of raw material procurement, usage of land and spatial arrangements of assemblages. The numerous accumulations show a variety of cultural entities including the Tarnowian, Witowian, Swiderian and Brommean cultures. The investigated area represents two main raw material provinces: the north Subcarpathia with Jurassic flint and the northern part of the Western Carpathians – where radiolarites were mainly found however other rocks were present, as well. Both cases are characterized by local production only merely enhanced with imported materials. The settlement is almost completely represented by open air sites although caves are also present (Zalas rockshelter). The extent of the assemblages varies from rich settlement units yielding several thousands of artefacts to tiny spots of about dozens of lithics. Only in case of a few archaeological sites an environmental record was acquired. It hinders a construction of a reliable chronology and therefore some comparative studies over the adjacent area are necessary. The basic reports indicate the northern part of the Western Carpathians and the Northern Subcarpathia region as “contact zone”, proving a local character of them as well as a strong affection from the part of the North European Plain.

Keywords: Tanged Point Technocomplex, Arch-backed Point Technocompl, Carpathians, Late Palaeolithic

1. Introduction

The aim of this work is to present an ongoing debate on late Palaeolithic settlement in the northern Carpathians in southern Poland during the Allerød, the Younger Dryas and the early Preboreal periods. The scoped area in geographical terms covers the northern part of the Western Carpathians and part of Northern Subcarpathia (Kraków Gate). It constitutes a southern border of north European cultural dynamics during that time. The summarizing maps of a late Palaeolithic settlement in Poland, compiled by R. Schild, (1975), shows almost a complete absence of backed industries and only a handful of collections with tanged points in Subcarpathia and Carpathians Mts (Fig. 1). The quantitative change in this picture that has occurred results from three main factors. The first is a long-term research project scoping SubTatras which focuses on the role of mountain passes as well as identification of local raw materials. The other factors are: systematic surveys (called the Polish Archaeological Record) which resulted in many new discoveries in the Carpathians. The important boost on research brought a large program of rescue excavation accompanying the large investments of the reservoir on Skawa river and the construction of A4 highway in Subcarpathia.

2. History of research

The first studies were done in the second half of the nineteenth century. They focused on the dunes in the valley of the Vistula near Kraków. Several collections coming from these studies are stored in the Archaeological Museum in Kraków (Czernichów,

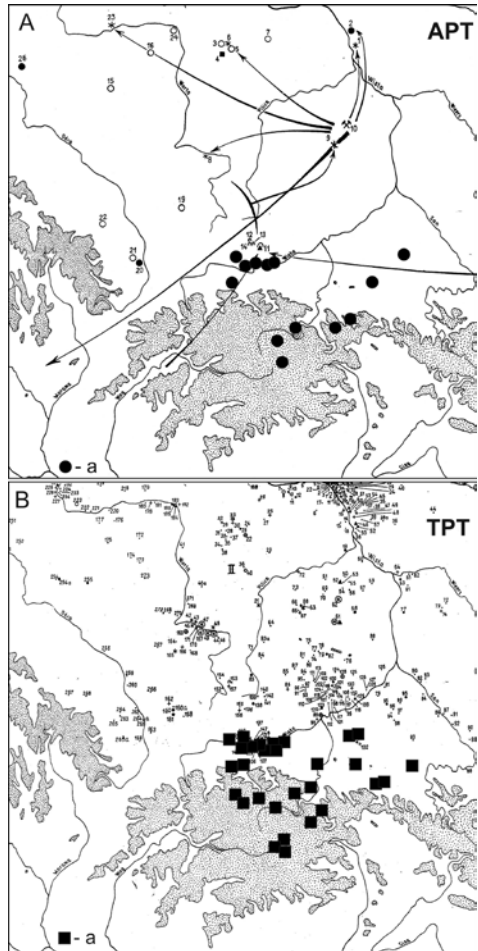


Fig. 1. The Late Palaeolithic settlement in the northern Carpathians, acc. R. Schild, (1975): a – Arch-backed Point Technocomplex, b – Tanged Point Technocomplex

Kraków-Borek Fałęcki, Kraków-Kobierzyn, Rączna, Ściejowice, Skawina, Tynec-Bagno, Tynec-Podgórk, Wołowice, Zakrzów). They were assembled by H. Bereza, B. Czapkiewicz, I. Kopernicki, Z. Gloger and A. Jura as a result of selective surveying in those areas. The detailed overview of the collection was made by E. Sachse-Kozłowska (1972) and A. Dagnan-Ginter and B. Drobiewicz (1974). Those materials were also included in synthetic descriptions

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(Kozłowski 1960; Ginter *et al.*, 1987). The first planned excavation was carried out in Zakrzów, Kraków-Kobierzyn and W Zalasie Rockshelter (Bocheński *et al.*, 1985) but it did not yield significant information. In 1990s a selective rescue excavations brought an important collection from Przeginia Narodowa (Zajac 1991) and Zagacie (Pawłowska 2003). Between 1996–2013 a large program of rescue excavation was realized during a construction of A4 highway.

The Late Palaeolithic settlement in Western Carpathians has been noted since 1970s when the Swiderian assemblage in Velký Slavkov in Tatra region was found (Bárta 1966; 1980). Subsequently the settlement gap between upper Vistula and Poprad valleys was reduced by results of pioneering surveys carried in Beskidy Mts. and Carpathians Foothills (i.e. Parczewski 1974; Tunia 1977; Rydlewski, Valde-Nowak 1979) and excavation in Lipnica Wielka 2 (Rydlewski, Valde-Nowak 1978; Rydlewski 1984), Dział 1 (Rydlewski 1986). Discovery and excavation of the Sromowce Niżne campsite raised a question of a local radiolarite exploitation in Pieniny (Rydlewski, Valde-Nowak 1977; 1980; Valde-Nowak 1991). Newest data concerning Western Carpathians come from the Polish Archaeological Record, rescue excavations during the investment of Świnna-Poreba reservoir and scientific projects concerning Nowa Biała I site. The new discoveries were also done in the Slovak part of the Carpathian – i. e. Lučivná/Svit-časť Pod Skalkou (Soják 2002).

3. Stratigraphy and chronological framework

The Late Palaeolithic assemblages are usually lacking in stratigraphic position as they are usually surface or sub surface finds. The only exception is W Zalasie Rockshelter where a rich assemblage of Magdalenian

was covered by 2 layers – the older with a hearth dated to the Allerød period accompanied only by a handful of lithics, and the younger – terminal Pleistocene layer with just a single find of double platform core (Bocheński *et al.*, 1985). Some remarks concerning dune stratigraphy of collected lithics were published by Czapkiewicz, (1936). The stratigraphy of sands at Kraków-Kurdwanów 10 site was researched by Woronko, (2001). The assemblage has been dated to the prae-eolian phase of the Younger Dryas

Only a handful of radiocarbon data are available for the study (Fig. 2). These are the most valuable: radiocarbon data on charcoal from the hearth of backed industry settlement from Nowa Biała – Poz-53553 11270±60 (Valde-Nowak, Kraszewska, in press), and slightly younger data on charcoal from mining shaft in Wołowice – Gd-4654 10920±200 BP (Bańdo *et al.*, 1993). The other indicate human activity in caves: e. g. the hearth in W Zalasie Rockshelter – GrN-8519 11500±400 (Bocheński *et al.*, 1985) and intriguing data on dust from speleotherm from Ciemna Cave – Gd-7095 11180±120 (Gradziński *et al.*, 2003). Yet data confirm Late Palaeolithic activity on palimpsest sites like Wołowice 4/90 – Gd-4612 9780±230 or Zagacie – Ki-7044 11260±60 (Pawłowska 2003) or they do not directly date human activity, like two radiocarbon datings of bones from Suchá diera – Gd-30012 11629±390 and Gd-18146 11230±280 (Soják, Hunka 2003). What should be emphasized is that those data mostly indicate human activity during the Allerød period.

This picture is undoubtedly caused by the state of the research and in the future the focus on the whole range of settlement, including tanged point assemblages should be put. Because of a lack of local well-documented stratigraphic sequences, those radiocarbon data must refer to lowland sites, especially to the sequences of Całowanie and Witów. Both cases together with a well-documented

stratigraphic record, supported by radiocarbon data, give a unique opportunity to develop a late Palaeolithic cultural and chronological framework (Schild *et al.*, 1999a; 1999b). Using the data contained in the relevant publications, a diagram can be constructed (Fig. 2).

The Swiderian settlement is confirmed by a late Palaeolithic TL data obtained from two features in Mucharz, site 12 (Valde-Nowak, Łanczont, 2008). The dates for feature 717: TL1 – 10 630±1170 years BP, and TL3 – 11020±1200 years BP, as in the case of feature 39 :TL2 – 10 370±913 years BP, TL3 – 10 450±836, can be related to Dryas III.

4. Cultural framework

According to the debate framing late Palaeolithic cultural picture two big technocomplexes

can be distinguished on the territory in question: Arch-backed Point Technocomplex (APT), Tanged Point Technocomplex (TPT)

4.1. Arch-backed Point Technocomplex (APT)

APT developed in northern zone of Europe during the Allerød and beginning of the Younger Dryas period. It is considered to be a result of impulses from Azylian (Burdukiewicz 2011) although influences coming from epigravetian of Black Sea region were also indicated (Chmielewska 1961b; Kozłowski 1987). On the ground of Polish discussion two facies of APT are mentioned: Witowian (Chmielewska 1961a; 1961b; Schild 1975) and Tarnowian (Krukowski 1939–1948; Schild 1975). Witowian is defined on basis

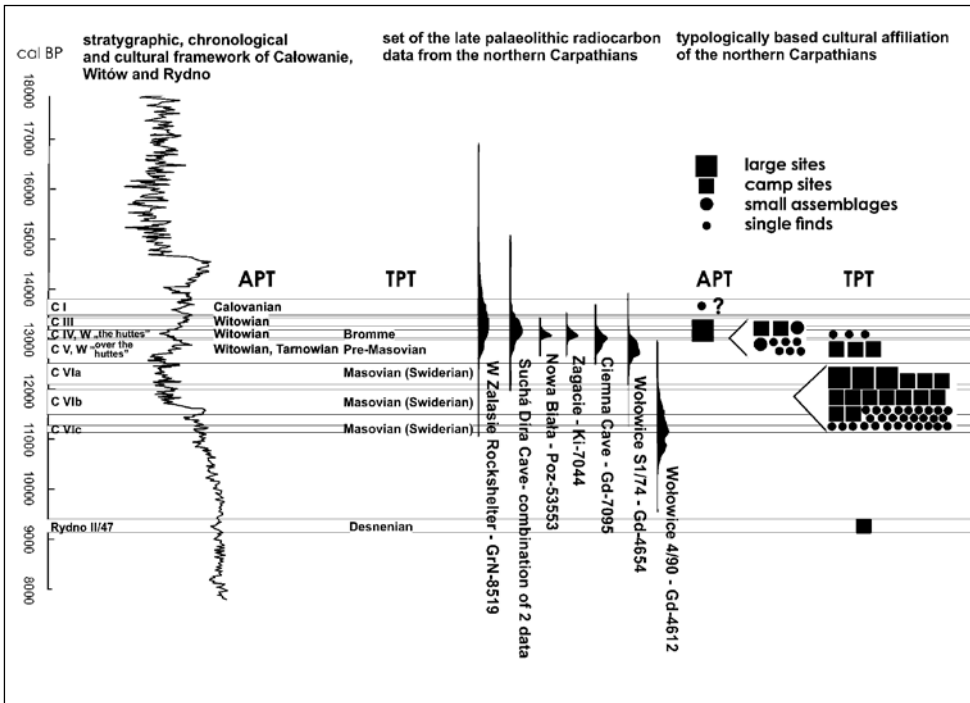


Fig. 2. The chronological and cultural framework of a late palaeolithic settlement in the northern Carpathians against the sequence of the lowland sites (after: Schild 1990; Schild *et al.*, 1999a; 1999b)

of stratified and multilayered lowland sites like Witów and Całowanie. Additionally the set of radiocarbon data gives an opportunity to frame an absolute age of the whole sequence. Tarnowian was pointed by Krukowski on the basis of the ambiguous assemblage from Tarnowa. There is a lack of well stratified or dated assemblages of Tarnowian. Poor, and partly mixed inventory of Tarnowian from the “over the huttes” layer of Witów could point relatively late chronology of Tarnowian in Central Europe (Chmielewska 1961b). Tarnowian is also thought to be an equivalent of western European Federmesser (Kabaciński, Sobkowiak-Tabaka 2010; Valde-Nowak, Kraszewska in press), although R. Schild (1975) clearly separated Tarnowian and the assemblage from Wołczkowo which, in his opinion, is an example of atypical Federmesser assemblage. Development of APT in central Europe is preceded by Calovian – the industry with thick backed implements, which is present in the lowest layer of Całowanie (level I) and according to R. Schild has no analogies in any known industries dated to the period of Allerød (Schild 1975; Schild *et al.* 2014). This archaic entity was never mentioned in the further debate concerning APT. Some scholars point also assemblages representing hybridization of backed and tanged industries, this is the case of the Tolk and Stallberg- Münchehofe group (Taute 1968) or swidero-tarnowian (Chmielewska 1978).

The most important assemblages of APT come from the sub-Tatra zone. Sromowce Niżne, a campsite witness processing of local radiolarite, is one of the first excavated ones. On the basis of morphology of homogeneous backed implement group, almost microlithic ones (Fig. 3: 2–4) it was referred to Witowian facies of APT. Different facies of APT represent new discoveries from Nowa Biała, where a campsite of APT was found (Valde-Nowak, Kraszewska, in

press). Heterogeneous backed implements, mostly slender specimens, made on blade resemble the Federmesser ones. Presence of APT in Beskidy Mts. is confirmed by assemblages from Zagórze (Valde-Nowak, Kraszewska in press) and Skwirtne (Valde-Nowak 1985; 1991). The single find of backed implement is known from Glinnik Górny 31 (Gancarski 1992).

The traces of APT in Subcarpathia are poor. The only assemblage is the not numerous and destroyed workshop from Kraków-Bieżanów 15. On the basis of core morphology it may be assigned to Witowian. The interesting find is an example of robust backed point, discovered at Kraków-Bieżanów 20 (Fig. 3: 1), strongly resembling the archaic ones from layer I in Całowanie (Klimek *et al.*, 2012). The other ones are single finds of usually slender specimens (Fig. 3: 5–7) which can be attributed to the Tarnowian/Federmesser tradition – Kraków-Bieżanów 8 and 14, 15 (Stefański 2012a; 2012b).

4.2. Tanged Point Technocomplex (TPT)

Tanged Point Technocomplex represents a north European tradition which developed in the end of the Allerød period in the south part of circum Baltic area (Brommean, Volkushian) and spread southward during the cooling of the Younger Dryas period and the early Preboreal period (Swiderian, Ahrensburgian) (Kozłowski 1999; Szymczak 1999; Burdukiewicz 2011). Beside those well recognized units an issue of “transitional assemblages” – Pre-Mazovian acc. R. Schild (Schild *et al.* 1999b), containing usually a choice of different tanged points (Lyngby, Ahrensburg, Swiderian points) as well as single backed implements, was raised. This is a question of Całowanie level IV (Schild 1975) or Wapiennik I/74 (Ginter 1966). The TPT tradition surprisingly backed to the south of Poland

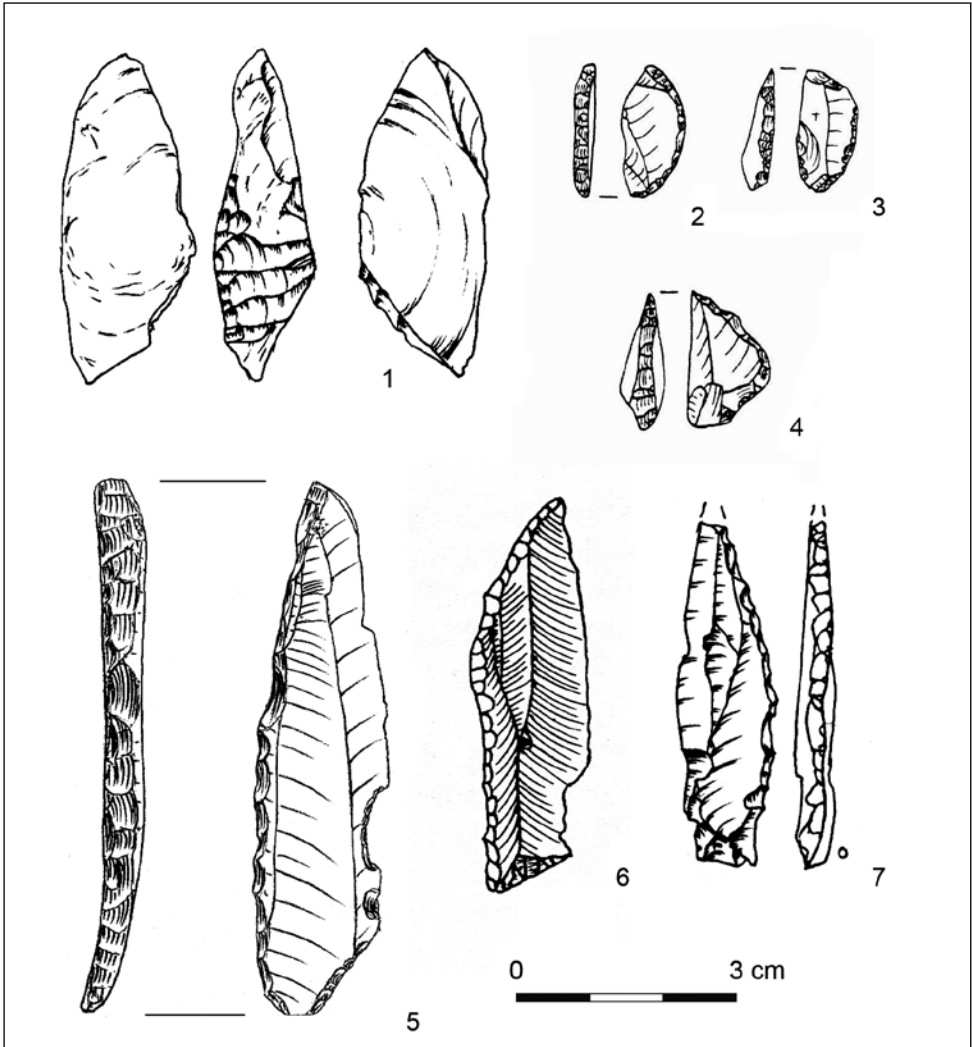


Fig. 3. Backed implements from the northern Carpathians sites: 1 – Kraków-Biezanów 20 (Klimek *et al.*, 2012), 2-4 – Sromowce Niżne (Valde-Nowak 1991), 5 – Kraków-Biezanów 15 (Stefański 2012b), 6 – Kraków-Borek Fałęcki (Sachse-Kozłowska 1972), 7 – Kraków-Biezanów 8 and 14 (Stefański 2012a)

during Boreal period. The typological element of Desnenian (upper Volga and upper Dniepr area) are known from Rydno (II/1947, IX/1947, I/1957) and Nowy Młyn 1a (Schild 1990) as well as Jacentów, Stańkowicze, Ossówka, Opatowiec, Nowa Wieś, Kraków-Kobierzyn (Kozłowski 2006).

Except for a few examples of Lynby points (Fig. 4), mostly of a Kašetos type (Szymczak 1987) from Kraków-Biezanów (Klimek *et al.* 2012; Stefański 2012a; 2012b) there are no evident signs of Brommean settlement in the area. Assemblages of “transitional industries” are

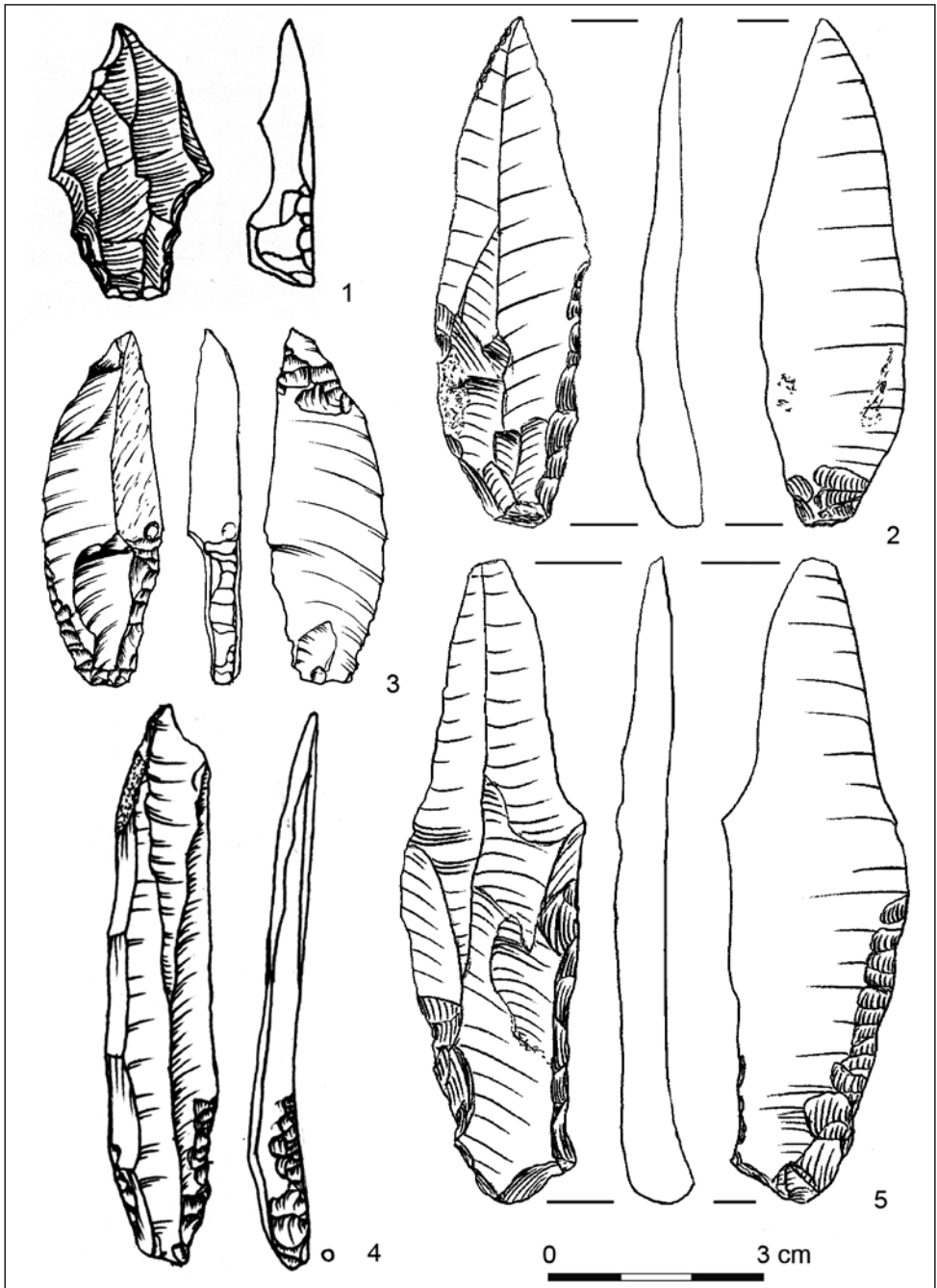


Fig. 4. Lyngby and Kašetos points from the northern Carpathians sites: 1 – Kraków-Borek Fałęcki (Sachse-Kozłowska 1972); 2, 5 – Kraków-Biezanów 15 (Stefański 2012b); 3 – Kraków-Biezanów 20 (Klimek *et al.*, 2012); 4 – Kraków-Biezanów 8 and 14 (Stefański 2012a)

much richer. Although there is no direct radiocarbon data, the mixed tool set, comprising variety of small tanged points and rare backed elements (Fig. 5) allows us to date it to the early stage of Younger Dryas. They are known from Przegonia Narodowa 1 (Zajac 1991) and Kraków-Kurdwanów 10 (Roczalski, Włodarczak 2002). In the whole area of the Northern Carpathians the remains of Swiderian culture prevails, as tens of the sites both in Subcarpathia and Carpathians are known (Kozłowski 1960; Ginter *et al.* 1987; Rydlewski 1990). Besides well-known antiquaries collections from Subcarpathia, new substantial finds like Zagacie (Pawłowska 2003); a complex of sites in suburbs of Kraków: Biezanów (Byrska *et al.* 2006; Klimek *et al.* 2012; Stefański 2012a; 2012b; Wilczyński 2012a; 2012b), Kurdwanów (Włodarczak 2002), Rząka (Kosik 2002; Przybyła, Stefański 2003) as well as Kokotów and a new assemblages from Zakrzów (Klimek, Peschel 2009) appeared (Fig. 6: 1–4). In addition to above mentioned Kraków-Kobierzyn site the traces of penetration of Desnenian are known from Kraków-Biezanów 15 (Fig. 6: 5, 6) where a little campsite was discovered (Stefański 2012b).

5. Raw material economy

One of the important factor drawing the attention of late palaeolithic people in the northern Carpathians was an abundance of raw materials. One of the best known is Jurassic Flint at the northern margin of Carpathians, bedded in limestone rocks of Jurassic plateau. During the last decades a great variety of silicates was also recognized in Carpathians. The most wanted one was radiolarite embedded in limestone of Pieniny Klippen Belt, but other raw materials like Mikuszowicki hornstone, flysch radiolarite, limnoquartzite and Bircza flint are also known for their processing during the Late Palaeolithic. Some

proxy data point a possibility of raw material mining here. The radiocarbon data from from Wołowice S1/74 support the hypothesis concerning the existence of late palaeolithic flint mine in the upper Vistula river basin (Bańdo *et al.* 1993). Local raw materials, especially those in Subcarpathia, constitute a substantial part of late palaeolithic assemblages (Valde-Nowak 1991; Stefański, Wilczyński 2012). Both Jurassic Flint and radiolarite broadly spread north reaching the Lowlands area (Sulgostowska 2006).

6. Spatial distribution

An abundance of archeological sites together with new data coming from vast excavations allow us to conduct a spatial analysis on different levels: off-site analysis scoping local clustering of sites or geomorphological preferences as well as an intrasite which focuses on distribution of artifacts on sites. The quantity summarizing the value of data is shown in the diagram by means of quality coding (Fig. 2). The most substantial data offering a possibility of a spatial analysis on every a. m. level come from the following site complexes: Mucharz-Zagórze in Beskidy Mts. and Kraków-Biezanów in Subcarpathia where the vast excavation uncovered dense hierarchized settlement with sort of camp sites, satellite sites and functional zones (Fig. 7). Both complexes are examples of exploitation of different landscapes. In the case of Mucharz and Zagórze it is a gorge of braided river in mountain range, whereas Kraków-Biezanów sites represent exploitation of small valley tributary to a big river (Vistula). Worth to mention are at least two dwelling structures of TPT documented at Mucharz 12 site (Valde-Nowak, Łanczont 2008). The feature 717 yielded over 1500 of artefacts including several double platform cores disperse around a shallow pit interpreted as a rest of living

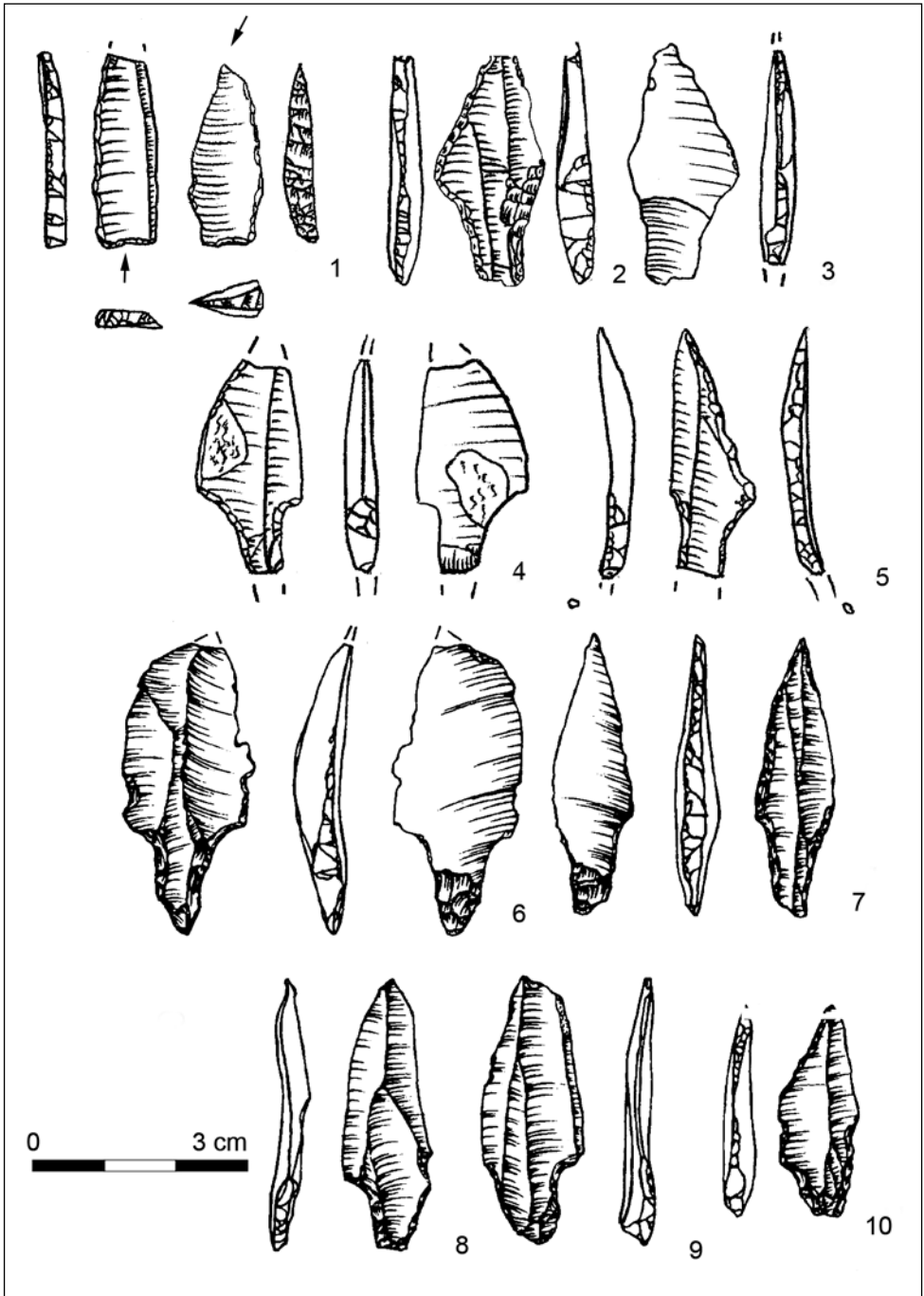


Fig. 5. "Transitional industries" from the northern Carpathians: 1–5 – Przegonia Narodowa 1 (after M. Zając's archive); 6–10 – Kraków-Kurdwanów 10 (Roczalski, Włodarczak 2002)

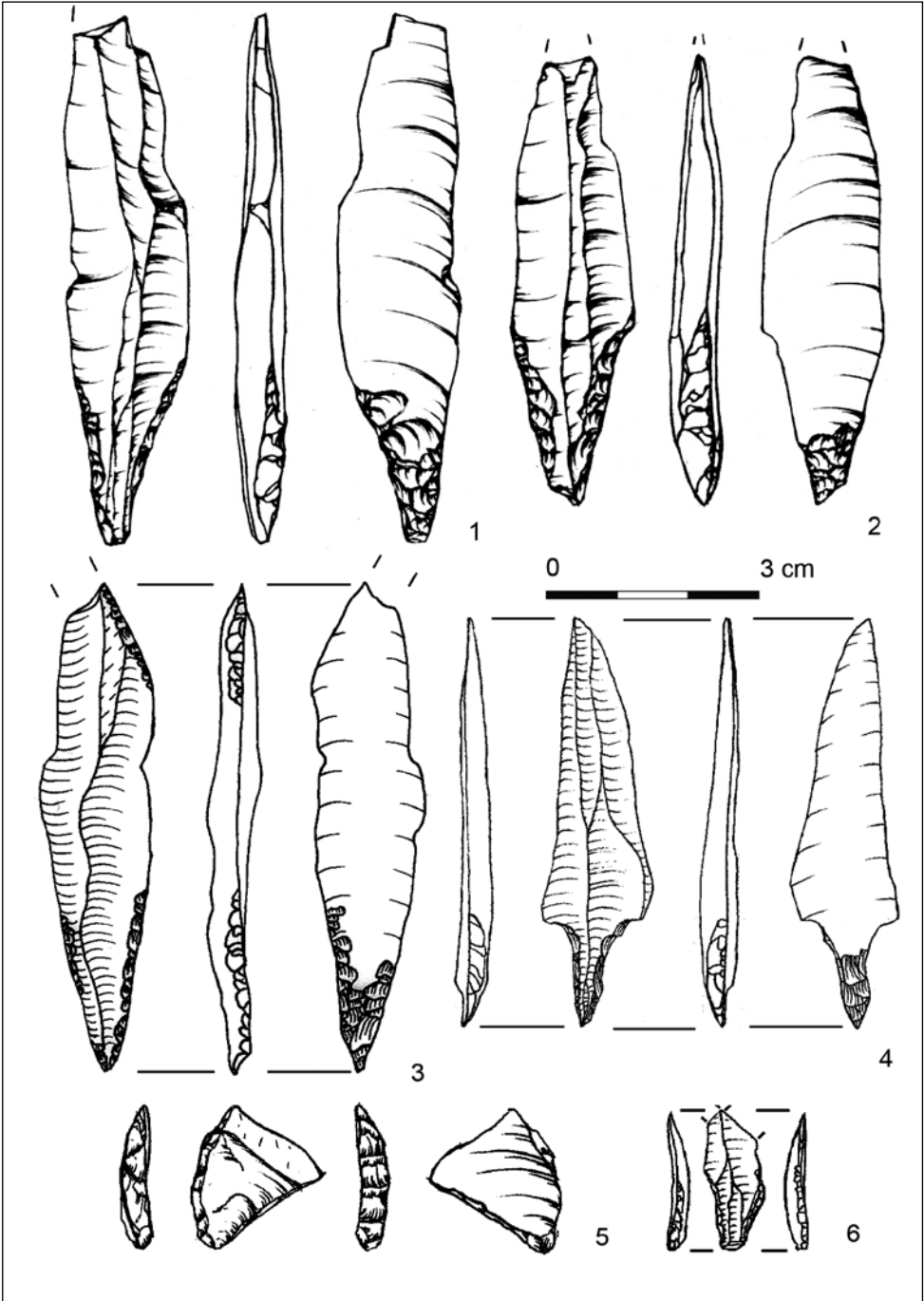


Fig. 6. Swiderian points (1–4) and Desnenian artifacts (5, 6) from the northern Carpathians: 1, 2 – Kraków-Biezanów 20 (Klimek *et al.* 2012); 3–6 – Kraków-Biezanów 15 (Stefański 2012b)



Fig. 7. Mucharz 12 – Zagórze 2 (A) and Kraków Biezanów 15 (B) sites during excavation (photos by: A – P. Valde-Nowak, B – D. Stefański)

floor. Feature 39 is a pit inside of living structure referring to TPT. A Świdry point together with 2 retouchers was found in the filling. The huge explored area at Kraków-Biezanów allowed us to recognize unique structures as satellite sites and functional zones encompassing camp sites (Stefański, Wilczyński 2012). This is the case of small concentration with tens of artefacts prepared elsewhere and brought to the site but also a functional zones characterized by concentration of the similar kind of artefacts (i.e. tanged point zone or scraper-burin zone).

7. Environmental studies

The numerous environmental research resulted among other in many paleobotanical diagrams. The North Carpathian oocumene

is characterised by slightly different environmental condition during the Late Palaeolithic period. It is proved by many research and analysis that local conditions was milder than in the northward Lowland area. According to A. Hrynowiecka-Czmielewska (2009), who summarized an the available data (Koperowa 1961; Obidowicz 1990) the North Carpathians during Allerød dominated boreal pine-spruce forest while the Lowlands were covered with birch forests followed by a pine phase. It has been recorded that steppe communities with grasses, juniper and shrubby birch tundra expanded during the Younger Dryas in the North Carpathians. Communities of forest-tundra with larches and stone pines are present. That time the Lowlands are characterised by predominance of a herb vegetation, steppe

communities with heliophytes and shrubby tundra. Junipers and sea-buckthorns are common.

8. Conclusions

The area in question represents extremely different landscapes as three „information windows” must be regarded: an upper part of big river valley (Vistula), middle mountains (Beskid Mts.), large mountainous basin (Podhale, etc.). This is what differentiates it from lowland centre and provokes an individual approach. Taking into consideration brief data, the Northern Carpathians can be point as one of the centre of late palaeolithic settlement. Such opinion can be formulated on the basis of numerous sites representing a complete picture of the cultural

sequence and long series of diagnostic tools. New research provide a set of radiocarbon data, indicating a hierarchized settlement pattern (camp sites, temporal/satellite site, single finds).

The factors which attract a late palaeolithic oecumene can be summarized as follow:

- rich and diverse beds of silica rocks,
- milder natural conditions in comparisons with periglacial Lowland zone (with forest formation during the Allerød and the Younger Dryas periods (including deciduous trees)),
- fauna set enriched by mountainous species i.e. Capricorn,
- dynamic relief as a factor invoking different hunting and fishing strategies – valleys, gorges.

Technokompleksy z tylczakami łukowymi i z liściakami w północnych Karpatach

Artykuł ma na celu podsumowanie stanu badań nad schyłkowopaleolitycznymi technokompleksami: z tylczakami łukowymi i z liściakami w Karpatach Zachodnich i na ich bezpośrednim północnym obrzeżu. Poruszone są w nim też zagadnienia taksonomii kulturowej. Pierwsze odkrycia takich materiałów w pobliżu północnej granicy Karpat Zachodnich dokonane zostały na wydmach prawobrzeża górnej Wisły w pierwszej połowie XX wieku. Znacznie później (połowa lat siedemdziesiątych ubiegłego wieku) doszło do pierwszych odkryć stanowisk schyłkowopaleolitycznych w karpackiej części dorzecza Wisły. Było to wynikiem podjęcia systematycznych badań poszukiwawczych, m. in. typu AZP. Realizowane w ostatnich latach duże programy archeologicznych badań ratowniczych, zarówno w pobliżu Progu Karpat (badania tzw. autostradowe), jak i w Beskidach (budowa zbiornika wodnego Świnna Poręba) znacznie zwiększyły zasób informacji o schyłkowym paleolicie na tych terenach. Naukowy potencjał niektórych stanowisk jest duży. W kilku przypadkach udało się zadokumentować ślady konstrukcji szałasowych, a także uchwycić zróżnicowanie stref aktywności ich użytkowników. Uzyskana została też seria dat AMS oraz TL. W rezultacie przeprowadzonych analiz techniczno-typologicznych rozpoznane zostały zespoły liściakowe, zarówno kultury świderskiej, jak i Bromme-Lyngby, a także tylczakowe, o cechach Federmesser i „witowskich”. Uwagę zwracają też elementy desnańskie, a także różnorodność surowcowa inwentarzy zabytków kamiennych.

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