of the shafts and in the side-workings may have allowed more detailed examination of individual behaviour connected for example with the organisation of work. The more detailed examination of the waste flint (taking into account a greater number of attributes and classified categories) would probably have given a fuller picture of flint-working at Jablines and the possibility of greater differentiation of the behaviour associated with it, detectable in the structural characteristics of the inventory. Despite these remarks however it must be strongly stressed that even despite the rescue nature of the investigations, we are presented with an exceptional piece of work, both from the point of view of the organisation and execution of the field investigations, but also in the quality of the final publication.

A few words about the editorial side of this monograph. Its logical layout invites attention, it is very clear and concise. The work is exceptional in its excellent graphic content, good photos and even better drawings. It is regrettable however that the general views of work in progress showing the scale of the investigations were published in an over-reduced format (figs 8–10). Of the terminology used in the work one feels a certain reservation about the term "chambres" for the quarrying in the side of the shafts in simple mines. This term however seems more suitable for the sort of underground workings seen in Shaft 4 at Krzemionki Opatowskie. The workings at Jablines are typical niches (as was appropriately translated in the Polish summary, p. 245), it seems that in these cases the French term "niche" would be completely appropriate for them.

The debatable points noted above however do nothing to detract from the great value of the discussed monograph. Such high quality publications of prehistoric mining complexes investigated on such a scale in Europe are very rare. France has a large number of prehistoric flint mining complexes, investigated on various scales since the mid 19th century. Until now however there had been a lack of investigations on a suitable scale and modern publications concerning them. This is why "Jablines, Le Haut-Château" is an even greater achievement, and is one of the classics of the European literature in this field; it may also serve to set a standard for future publications of this type, not only in France.

Translated by Paul Barford


Reviewed by Krzysztof Cyrek and Paul Barford

This volume is a collection of over 25 articles written as a result of a symposium held at Ojców near Cracow in May 1990. It concerns the personality and achievements of the great archaeologist Professor Stefan Krukowski, excavator of such key Palaeolithic sites in Poland as Cienna Cave at Ojców and Piekar near Cracow and Kostienki in Russia, and discoverer and for many years guardian of the Neolithic striped flint mine at Krzemionki Opatowskie. Krukowski also distinguished and first described an important tool of the Middle Palaeolithic in central Europe which he called a prądnik (prondnik or prondk) after the name of river in which valley it was first discovered. Professor Krukowski is presented here both from a historical point of view, against the background of his contemporaries, and also from today's perspective. Moreover, an important but hitherto unpublished article of the Professor's dating from 1970 is included, as well as a bibliography of his work. The book is in Polish, but has summaries, captions, abstracts and key words in English.

The volume opens with an introduction by Lech and Partyka characterising the role of Krukowski in the development of Polish Stone Age archaeology. This is supplemented by a full bibliography (pp. 21–8)
of the work of Krukowski (by D. Piotrowska) containing 57 items, of which several are fundamental and decisive for the development of Polish archaeology of the Stone Age.

Many of the articles in the book are reminiscences of those who knew or met Krukowski. From these emerge a picture of a legendarily colourful figure who in many ways may be described as “larger than life”. The first of these, the articles of H. Więckowska and J. Wrońska (“A retrospect of Professor Stefan Krukowski...” (pp. 29–40) and “The beginnings of Professor Stefan Krukowski’s research work”, pp. 41–57) consider the beginnings and various stages of the development of Krukowski’s work, illustrated by reminiscences, letters and notes. His connections with other scholars of the period (e.g., E. Majewski and L. Sawicki) are discussed. S.K. Kozłowski’s article (pp. 59–64) attempts to verify the stereotypic view that Krukowski was a self-taught genius, and emphasises the influence of Erazm Majewski on his development. The relationship between master and pupil are also discussed by E. Sachse-Kozłowska in her article “First pupils” (pp. 65–70) which presents interesting facts concerning the relationship between Krukowski and his first students in the Inter-War period, among them being Zygmunt Szmit (1891–1929), the discoverer of the flint mine at Krasnoye Sel in western White Russia (now Krasnaselsky in Belarus - BY 1).

A further group of such articles is found later in the volume. The final few articles are personal reminiscences of Krukowski. Z. Krzak in “Stefan Krukowski as I remember him” (pp. 249–12), presents an exceptional picture of the colourful character of Krukowski, E. Gieysztor-Szymczak writes of her meeting with Krukowski three years before his death while a student researching her master-thesis (pp. 253–5); this is illustrated by a facsimile of a letter from Krukowski written in a specific style and language. The text by K. Kowalski (“Too late”, pp. 263–6) also contains personal reminiscences of Krukowski as a strong and stubborn personality with whom it was difficult to work on a day-to-day basis.

A second group of articles deal with the place of Krukowski’s work in the context of the development of European Stone Age archaeology. Partyka in his article “Ojców and archaeology in the years 1871–1924” (pp. 71) discusses the beginning of scientific investigations of the caves in the valley of the Prądnik River to the north of Cracow. Excavations were carried-out in 1871 by Count Jan Zawisza (the owner of the village), followed by Gotfrid Ossowski, Stefan Jan Czarnowski and in 1918–1919 by Stefan Krukowski. His impressive excavations in the Ciemia Cave, a trench 8 m deep in which he distinguished ten natural layers and eight occupation levels, was an advance on the work of his predecessors. The article also emphasises Krukowski’s role in the formation of the Ojców National Park.

W. Morawski in his article “The complex of Palaeolithic sites at Piekary” (pp. 163–72) presents the history of investigations and the results of his own work on the Palaeolithic sites at Piekary near Cracow, investigated by Krukowski in 1927–1936. These investigations highlight Krukowski’s ability to find sites where there was a real chance of recovering important new information on the Stone Age. In the following article Z. Sulgoostowska (pp. 173–8) considers Krukowski’s excavation of the outstanding Final Palaeolithic (Sviderean) flint workshops at Gulin and Nobel. In a related article H. Więckowska presents (pp. 183–93) a short description of studies of the region of Debe near Warsaw.

The article by B. Balcer (pp. 201–13) “The influence of Professor Stefan Krukowski on the development of Neolithic and early Bronze Age studies” has the character of a more personal reminiscence. He notes the great influence that contact with Krukowski had on younger scholars, including the young Konrad Jazdzewski. He also shows certain tendencies in Krukowski’s investigations which were later reassessed negatively (such as the excessive sub-division of Neolithic flint industries and an unfavourable attitude to all forms of statistical analysis).

Many of the papers stress the methodological innovativeness of Krukowski’s work and the high quality of his fieldwork. S. Kowalski presents some remarks (pp. 87–94) concerning Krukowski’s novel conceptions of research of prehistory and the methodology of research. He stresses the interdisciplinary approach of Krukowski, who employed the methods and results of petrography, geology and sedimentology (and sometimes ethnology) in resolving problems concerning prehistory. Kowalski notes Krukowski’s tendency to establish a specific, almost spiritual, “contact” with the makers of the flint
artefacts he studied which was manifested as he examined a flint as a series of verbalised critical assessments of the efforts of the flint-knapper thousands of years ago. He regarded flints as a component of a whole assemblage composed not only of tools, but also of cores, pre-cores and waste flakes. On reading this text we become aware that many elements of modern analyses of flint assemblages (such as identification of raw materials, detailed visual and tactile examination, as well as the practice of laying the material out on long tables) owe their beginning in Poland to Stefan Krukowski.

The article of K. Sobczyk "Stefan Krukowski’s concept of prądnik" (pp. 103–17) is of a slightly different character from the others in the volume. He attempts a numerical classification of the tools prądnik knives first identified by Krukowski in 1939. According to this classification it transpires that the original subjective choice of characteristics of these tools and the morphological differentiation of the tools noted by Krukowski has in fact an objective basis. This demonstrates the exceptional intuition of this investigator. Sobczyk suggests that the examples closest to the type form should be known as "Krukowski’s prądnik". This is already the case with a type of microburin, which is discussed by R. Schild in his text "A short but complicated history of a certain microburin". He shows by an analysis of Krukowski’s scientific biography that, despite the doubts of J. Tixier, it was indeed Krukowski who in 1938 first identified the flake-scar on backed-pieces which bear his name.

W. Chmielewski (pp. 119–23) considers the geological concepts of Krukowski regarding the dating of Pleistocene sites in Poland. He discusses their origin, novelty and errors in the light of more recent knowledge. Several innovative concepts of Krukowski (such as three divisions of stadials, and the so-called zonographic dating of the final Palaeolithic) have been verified in the past 30 years. Krukowski’s fieldwork is considered by M. Kobusiewicz (pp. 125–8), who emphasises that Krukowski was primarily a fieldworker who concentrated his efforts on the recovery of new material from caves and rock-shelters, open sites on loess and sand-dunes (as well as flint and ochre mines). He developed methods of stratigraphical excavation and a system of mechanical units ("rows and squares"). His excavations were always well-organised with the workers well-trained and acting precisely and reliably.

One of the most characteristic features of Stefan Krukowski was his feeling for the study of the typology of flint artefacts, and also his specific manner of expressing his thoughts and coining new words. Both of these characteristics came together to create a new theoretical framework which he called "Genetic Prehistory". The second item in the book (pp. 15–9) is a previously-unpublished article by Krukowski written in 1970 and titled "The background and framework of genetic prehistory" which presents the main principles of the investigative method of Stefan Krukowski towards the end of his life, and forms a suitable introduction to the subject of the volume.

R. Schild in his article "Prehistoric cultural taxonomy according to Krukowski" (pp. 95–102) discusses Krukowski’s approach to taxonomy in two of his most influential works. The first was his consideration of the Palaeolithic (1939), the taxonomic system (industry — members — cycle) and its aspects due to raw material and function. The system introduced by Krukowski in 1939 was in use by Polish prehistorians for many years. Schild also considers one of Krukowski’s most controversial works, the thoughts gathered under the title "Snad and obsuria. Beginnings of genetic prehistory", more usually known as "Skam 71", published in 1976. This is a development of Krukowski’s earlier ideas. This book is discussed further by two other contributors to the volume. Schild compares Krukowski’s concept of obsuria with the isochronic idea of style of J. Sackett.

B. Maryniak in a notable article "The theoretical aspects of Skam 71" (pp. 233–40) considers this collection of essays from the point of view of an archaeologist and philosopher of science. The author characterises Krukowski’s achievements in creating a new language of the so-called “genetic prehistory”, and identifies part of its source in the work of E. Majewski. He emphasises the difficulties caused by the creation of such a hermetic language in the humanities, which is why Krukowski was bound not to succeed. The author presents an interesting reconstruction of Krukowski’s hypothetical model and stressing the actuality of some of its aspects. T. Galiński (pp. 241–8) also considers the relationship between Krukowski’s theories
in "Skam 71" and recent tendencies in Late Palaeolithic and Mesolithic archaeology. He attempts to show that Krukowski's theory (teoria obarwów kamazii genetycznej) which has been underrated and even ridiculed by archaeologists has many ideas which greatly influence contemporary archaeological thought. Krukowski made stylistic features the main element of the analysis of flints. Krukowski's theory has inspired Galiński to question the principles of the treatment of Mesolithic assemblages of different sizes and spatial arrangements in the same way.

Another of Krukowski's claims to fame is as discoverer of the Neolithic flint mines at Krzemionki Opatowkie. Lech's lengthy article "Stefan Krukowski and the beginnings of research into prehistoric flint mining in Poland 1919–1939" (pp. 129–61) presents a synthetic and exhaustive survey of early investigations of flint mining, showing Krukowski's work in its context of European archaeology. Lech stresses the importance of the differentiation by Krukowski of the mining and domestic podfacsies of flint assemblages. He takes 1919 as the beginning of Polish work on flint mining and regards Krukowski as its initiator, he stresses that Krukowski's work at Krzemionki was of a high standard and was the "systematic realisation of a well-conceived investigative concept", and also that the problems which Krukowski set out to answer are still actual, recent work (by Schild, Ginter, Balcer, Lech and also to a lesser degree Cyrek) is an evident continuation of and in part inspired by the programme set out by Krukowski.

M. Zalewski in his article (pp. 217–23) on microregional studies on the settlement organisation around the Neolithic flint mines at Krzemionki Opatowkie notes that this project, first suggested by Krukowski is still actual. Krukowski initiated the systematic penetration of the terrain of a defined microregion on a scale never met before. Some aspects of the project, such as the documentation of sites by marking them on maps with no additional notes, and the fact that the material was never processed, require however more critical assessment. W. Borkowski (pp. 225–32) discusses Krukowski's plan, even fight, to create an archaeological reserve at Krzemionki. The paper by J. Bąbel (pp. 237–62) describes Krukowski's strong character and his influence on the investigations at Krzemionki.

In the "Concluding remarks" (pp. 271–6) A. Abramowicz summarises the whole volume and also notes the similarities in Krukowski's language and that created by the futurists in the first quarter of the twentieth century.

The careful production and thoughtful presentation of the book attract attention. It is exceptionally richly-illustrated with a well-selected series of figures. It contains some unique photographs from the second half of the nineteenth and early twentieth centuries showing prominent Polish Stone Age researchers of the period. The book is also illustrated with a selection of beautiful flint drawings drawn under Krukowski's supervision for the 1939 summary of the Palaeolithic. This very interesting idea forms a very useful addition to the texts they accompany, and also illustrate Krukowski's own high standards.

The collection thus contains several types of article, there are many recollections of personal contacts with the professor, another group of articles considering problems which Krukowski had examined, and those assessing the role of Krukowski's work in its Polish and European context, and finally those which carry-out a critical analysis of Krukowski's concepts. All of them, written by scholars of three generations are characterised by one common characteristic which is a lively interest in the scientific work of Stefan Krukowski and respect for his colourful character. The publication is an important work for the history of Polish and European Stone Age archaeology in the twentieth century. The organisers of the symposium and the discussed volume are to be congratulated for the beautiful way in which we are thus able to honour the memory of Professor Stefan Krukowski.