



ACADEMIA ROMÂNĂ
INSTITUTUL DE ARHEOLOGIE „VASILE PÂRVAN”

MATERIALE ȘI CERCETĂRI ARHEOLOGICE

SERIE NOUĂ
NR. XXII, 2026



EDITURA ACADEMIEI ROMÂNE

Colegiul de redacție

Dr. **STEFAN ALEXANDROV** (National Institute of Archaeology and Museum, Sofia), Dr. **SANDA BALESCU** (Université des Sciences et Technologies de Lille, Laboratoire de Préhistoire et Quaternaire, CNRS, France), Dr. **CONSTANTIN BĂJENARU** (Muzeul de Istorie Națională și Arheologie Constanța), Dr. **RADU BĂJENARU** (Institutul de Arheologie „Vasile Pârvan”, București), Dr. **LUMINIȚA BEJENARU** (Universitatea „Alexandru Ioan Cuza” Iași; Centrul de Antropologie „Olga Necrasov” al Academiei Române – Filiala Iași), Prof. Dr. **CLIVE BONSALL** (University of Edinburgh, U.K.), Prof. Dr. **NIKOLAUS BOROFFKA** (Deutsches Archäologisches Institut – Eurasien Abteilung, Berlin, Germany), Dr. **PIERRE DUPONT** (Université de Lyon, CNRS, France), Dr. **UWE FIEDLER** (Berlin, Germany), Dr. **RADU HARHOIU** (Institutul de Arheologie „Vasile Pârvan”, București), Dr. **DOMINIC MOREAU** (Université de Lille, Centre de recherche HALMA-UMR 8164, France), Dr. **CORIOLAN OPREANU** (Institutul de Arheologie și Istoria Artei, Cluj-Napoca), Prof. Dr. **ANNIE RENOUX** (Université du Maine, Le Mans), Dr. **ALEXANDER RUBEL** (Institutul de Arheologie, Iași), Dr. **VIORICA RUSU-BOLINDEȚ** (Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca), Dr. **ANGELA SIMALCSIK** (Centrul de Antropologie „Olga Necrasov” al Academiei Române – Filiala Iași), Academician **VICTOR SPINEI** (Institutul de Arheologie, Iași), Prof. Dr. **ERIK TRINKAUS** (Department of Anthropology, Washington University), Prof. Dr. **ALAIN TUFFREAU** (Université des Sciences et Technologies de Lille, Laboratoire de Préhistoire et Quaternaire, CNRS, France)

Comitetul de redacție

ROXANA DOBRESCU – redactor-șef
ADRIAN IONIȚĂ – redactor-șef adjunct

IRINA ACHIM, ADINA BORONEANȚ, MIRCEA DABÎCA, ADRIAN DOBOȘ, RADU-ALEXANDRU DRAGOMAN, ANDREI MĂGUREANU, LIANA OȚA, ADRIANA PANAITE, TALIDA RADU, DANIEL SPĂNU, VLAD VINTILĂ ZIRRA – membri

DANA COSTIN, SILVIU ILIUȚĂ – secretari de redacție

OFELIA COȘMAN, SILVIU ILIUȚĂ – prelucrare ilustrație și tehnoredactare
PIERRE DUPONT (limba franceză), **ROXANA DOBRESCU** (limba franceză), **DANA COSTIN** (limba engleză), **CLIVE BONSALL** (limba engleză), **ADINA BORONEANȚ** (limba engleză) – consultanți limbi străine
ROMEO CÎRJAN – design copertă, **SILVIU ILIUȚĂ** – execuție copertă

www.mcajournal.ro

Orice corespondență se va trimite Comitetului de redacție pe adresa: Str. Henri Coandă nr. 11, 010667 București, tel./fax 4021 212 88 62 și iab.redactie@gmail.ro.

**Toate lucrările publicate în revista *Materiale și Cercetări Arheologice* sunt recenzate de specialiști în domeniu.
(peer-reviewed journal)**

**Revista *Materiale și Cercetări Arheologice* este indexată în următoarele baze de date:
Persée, Index Copernicus, ERIH PLUS, Scopus, CEEOL, EBSCO și DOAJ.**

Redactori Editura Academiei Române: **ADRIANA DUMINICĂ, ADRIAN MIRCEA DOBRE**

Revista se poate procura contracost la sediul EDITURII ACADEMIEI ROMÂNE, Calea 13 Septembrie nr. 13, sector 5, 050711, București, România; tel. 4021-318 8146, 4021-318 8106, Fax 4021-318 2444, e-mail: edacad@ear.ro, periodice@ear.ro

ORION PRESS IMPEX 2000 S.R.L., P.O. Box 77-19, București, România, Tel./Fax: 4021-610 6765, 4021-210 6787, Tel.: 0311 044 668, e-mail: office@orionpress.ro.

S.C.MANPRESS DISTRIBUTION S.R.L., Piața Presei Libere nr. 1, Corp B, Etaj 3, Cam. 301-302, sector 1, București, România, tel./fax: 4021-314 6339, e-mail: abonamente@manpres.ro, office@manpres.ro, www.romanianjournals.com.

DEREX COM S.R.L., e-mail: derec_com@yahoo.com.

SUMAR / SOMMAIRE / CONTENTS

PREISTORIE / PRÉHISTOIRE / PREHISTORY

Alexandru CIORNEI	
Three in one: the Prut flint.....	7
Hatice ERGÜNER, Murat KARAKOÇ	
A study of the pottery assemblage from Düden Höyük, Karaman province, Türkiye.....	35
Monica MĂRGĂRIT	
Osseous projectile points at the Gumelnița tell settlement from Căscioarele – <i>Ostrovel</i> (Romania)	53
Meda TODERAȘ, Monica MĂRGĂRIT	
De la materie primă la obiect finit: economia și tehnologia materiilor dure animale în locuința W37 din așezarea gumelnițeană de la Pietrele	73
From raw material to finished object: economy and technology of osseous materials in house W37 from the Gumelnița settlement at Pietrele	
Vasile OPRÎȘ, Mihai CONSTANTINESCU, Theodor IGNAT, Adrian BĂLĂȘESCU, Sorin AILINCĂI, Vlad-Ioan BÎNDEA, Adelina DARIE, Elena GAVRILĂ, Dan PÎRVULESCU, Monica MĂRGĂRIT, David BACIU, Valentin RADU, Mihaela GOLEA, Cristina COVĂTARU, Cornelis STAL, Adrian ȘERBĂNESCU, Cristian ROTH, Bogdan MANEA, Mădălina VOICU, Mihai-Ștefan FLOREA, Monica DRĂGHICI, Camelia DINU, Alfred VESPREMEANU-STROE, Luminița PREOTEASA, Laurențiu ȚUȚUIANU, Adrian-Florin VASILE, George GROSU, Adrian CÎRJAN, Oana GÂZA, Mirela MIHON, Maria ILIE, Cristian MĂNĂILESCU	
New investigations at Glina Tell: 2025 fieldwork results and preliminary insights into material and environmental evidence.....	87
Stefan ALEXANDROV, Rositsa MANOVA, Aneliya PETRINA, Stela ATANASSOVA-VLADIMIROVA, Nadezhda ATANASSOVA, Tomasz OBERC, Michał PODSIADŁO, Piotr WŁODARCZAK	
Cinnabar use in the Early Bronze Age mortuary practices of the Northern Balkans.....	169
Talida RADU	
Vasele de tip <i>pyraunos</i> din epoca bronzului de pe teritoriul României.....	199
Bronze Age <i>pyraunos</i> -type vessels from Romania	
Petar MINKOV	
What's under the lid: a contribution to the study of some details of the Vălchitrăn, Cherven Bryag and Călărași treasures (102 years later).....	219
Cristian Eduard ȘTEFAN, Dragoș-Alexandru MIREA	
Notă asupra unor piese de metal preistorice din nord-vestul Munteniei	227
Remarks on some prehistoric metal artefacts from northwestern Muntenia	

PERIOADA GRECO-ROMANĂ / PÉRIODE GRECO-ROMAINE / GRECO-ROMAN PERIOD

Pierre DUPONT, Alexandre BARALIS, Alexey GOTSEV, Emil NANKOV, Vyara PETROVA, Tsvetelina SLAVKOVA	
Note on the common wares from "Pistiros"	241
Daniel SPÂNU	
Fibule care (ne) privesc. Conectivități supraregionale din perspectiva fibulelor cu ochi (<i>Augenfibeln</i>) din România	253
Fibulae that look (back) at us. Supraregional connectivity from the perspective of the eye fibulae (<i>Augenfibeln</i>) in Romania	

Ergün LAFLI	
Four Roman lamps with gladiatorial themes from Kocaeli (north-western Turkey).....	267
Murat DURUKAN	
The supply system and the LR1 amphorae in Late Antiquity: a historical and archaeological analysis of the Eastern Mediterranean through the Olba model	275
Yavuz YEĞİN, Kasım OYARÇIN, Muzaffer YILMAZ	
Coins of a monumental structure identified as a temple-plan tomb at Olba.....	285
Safiye AYDIN	
Preliminary assessments of a new collection of Late Roman ware found at the theatre in the city of Prusias ad Hypium.....	299
Akın TEMÜR	
Preliminary considerations on the Roman Baths in Sebastopolis	311
Melih ARSLAN, Burçak DELİKAN	
Roman imperial octagonal gems: analyses and interpretations	331
Melih ARSLAN, Burçak DELİKAN	
Gemstones depicting Hermes from Asia Minor in the Roman imperial period	353

PERIOADA MEDIEVALĂ / PÉRIODE MÉDIÉVALE / MEDIEVAL PERIOD

Alin FRÎNCULEASA, Eduard Andrei GHINEA, Octav NEGREA, Emil GRIGORESCU	
Contribuții arheologice privind perioada timpurie a epocii medievale în nordul Munteniei. O evaluare preliminară a locuirii de tip Ipotești-Cândești din situl de la Urlați (Prahova).....	375
Archaeological contributions to the Early Medieval period in northern Muntenia: a preliminary assessment of the Ipotești-Cândești - type settlement at Urlați (Prahova)	
Ioana MANEA	
Maximum entropy modelling for predictive archaeology: mapping 8 th – 11 th century settlements in Ilfov County	417
Réka FÜLÖP	
Beyond cultural groups. Rethinking Horedt's cultural grouping system in Early Medieval Transylvania	427
Erwin GÁLL, Zsuzsana KOPECZNY, Róbert GINDELE, Gergely SZENTHE, Ștefan POPA	
<i>Sfârșitul tipo-cronologiei?</i> Problema datării mormântului 113 cu depunere de resturi de cal de la Vălcani – <i>Vamă</i>	447
<i>The end of typo-chronology?</i> The dating problem of grave 113 with horse remains from Vălcani – <i>Vamă</i>	
Alexandru MORINTZ, Franceska ȘTIRBU, Ștefania MEȘTERIUC, Irina HUICĂ	
Un mormânt medieval cu inel sigilar și vas de sticlă descoperit la Bufta – <i>La Cârână/Mănești</i>	463
A Medieval grave with a signet ring and glass vessel from Bufta – <i>La Cârână/Mănești</i>	

SECOLELE XVIII – XX / XVIII^e – XX^e SIÈCLES / XVIIIth – XXth CENTURIES

Adrian IONIȚĂ	
Cercetări arheologice la „Ansamblul fostului conac Lecca Micșunești” (sat Micșuneștii Mari, com. Nuci, jud. Ilfov)	495
Archaeological investigations at the “Former Lecca Micșunești Manor” (Micșuneștii Mari village, Nuci commune, Ilfov County)	
Corina Anca SIMION, Daniela CRISTEA-STAN, Elena Alexandra ISPAS, Maria Loredana MARIN, Alexandru Răzvan PETRE, Oana GÂZA, Maria Valentina LUCA-ILIE, Cristian MĂNĂILESCU	
Cercetări arheometrice la „Ansamblul fostului conac Lecca Micșunești” (sat Micșuneștii Mari, com. Nuci, jud. Ilfov)	523
Archaeometric investigations at the “Former Lecca Micșunești Manor” (Micșuneștii Mari village, Nuci commune, Ilfov County)	
Radu-Alexandru DRAGOMAN, Sorin OANȚĂ-MARGHITU	
O arheologie a patru noi martiri ai Bisericii Romano-Catolice din România și ai Bisericii Române Unite cu Roma, Greco-Catolice.....	539
An archaeology of four new martyrs of the Roman Catholic Church in Romania and of the Romanian Church United with Rome, Greek-Catholic	

SĂPĂTURI PREVENTIVE / FOUILLES PRÉVENTIVES / PREVENTIVE EXCAVATIONS

Silviu ENE, Silviu ILIUȚĂ, Alin DIACONU, Dorel MICLE	
Cercetări arheologice preventive în situl de la Moșnița Nouă – <i>Hotarul satului</i> (2018)	563
Preventive archaeological investigations at the Moșnița Nouă – <i>Hotarul Satului</i> (2018)	
Mircea NEGRU, Silviu ENE, Elena GAVRILĂ	
Cercetări arheologice la București, Militari – <i>Câmpul Boja</i> . Campania 2015	595
Archaeological investigations at Bucharest, Militari – <i>Câmpul Boja</i> . The 2015 campaign	
Silviu ENE, Silviu ILIUȚĂ, Alin DIACONU, Dorel MICLE	
Cercetări arheologice preventive în satul Macedonia, orașul Ciacova, punctul Biserica „Sfânta Cuvioasa Parascheva” (campania 2020)	623
Preventive archaeological investigations in Macedonia village, Ciacova, at the „Sfânta Cuvioasa Parascheva” Church (2020 campaign)	
Silviu ILIUȚĂ, Silviu ENE, Alin DIACONU, Dorel MICLE	
Cercetări arheologice preventive în Ciacova, punctul <i>Atelier bronz</i> (2018)	639
Preventive archaeological investigations at the Ciacova – <i>Atelier Bronz</i> (2018)	
Abrevieri / Abréviations / Abbreviations	655

THREE IN ONE: THE PRUT FLINT

Alexandru CIORNEI

“Vasile Pârvan” Institute of Archaeology, Bucharest, Romania; alexandru.ciornei@iabvp.ro

Keywords: Prut, Dniester, Volhyno-Podolian, flint, chert, Palaeolithic, Neolithic, Romania, Petroarchaeology

Abstract: In the late 1950s and early 1960s, the term Prut flint was established as an archaeological raw material category for the Palaeolithic assemblages in the Bistrița Valley (Ceahlău Basin, north-eastern Romania). This was based on visual characteristics and a handwritten petrographic note by the geologist Th. Joja. Since then, the Prut flint has been recognised and mentioned in other archaeological sites in Romania, Ukraine and Hungary, at distances of over 600 km from the occurrence area. In this contribution, the petrographic descriptions of Prut flint, published in archaeological and petroarchaeological papers from Romania, were reviewed and compared with the new data about this raw material. The most frequently mentioned information regarding the Prut flint is its range of colours (from black to grey-brownish) and its occurrence area along the Middle Prut Valley between Rădăuți-Prut and Liveni/Ștefănești. However, most papers featuring microscopic investigations on the Prut flint proved to contain insufficient information for a consistent characterisation and comparison between archaeological and geological samples, and hence a reliable provenience. Recent microscopic analyses of archaeological materials from Ceahlău Basin demonstrated that at least two distinct types were hidden within the Prut flint category. This contribution also brings fresh geological and petrographic data derived from new research carried out in the Middle Prut Valley (Botoșani County, north-eastern Romania) and the Middle Dniester Valley (Ocnița-Șoldănești districts, Republic of Moldova). Based on the new data, a petrographic classification of siliceous materials from the Prut and Dniester valleys is proposed.

Cuvinte-cheie: Prut, Nistru, Volhyno-Podolian, silix, silicolit, paleolitic, neolitic, România, petroarheologie

Rezumat: La sfârșitul anilor 1950 și începutul anilor 1960, termenul de silix de Prut a fost stabilit drept categorie de materie primă arheologică pentru ansamblurile paleolitice de pe Valea Bistriței (Bazinul Ceahlău, Nord-estul României). Aceasta s-a bazat pe caracteristici vizuale și pe o notă petrografică scrisă de mână de geologul Th. Joja. De atunci, silixul de Prut a fost recunoscut și menționat în alte situri arheologice din România, Ucraina și Ungaria, la distanțe de peste 600 km de aria sa de ocurență. În această contribuție, descrierile petrografice ale silixului de Prut, publicate în lucrări arheologice și petroarheologice din România, au fost examinate și comparate cu noile date despre această materie primă. Cele mai frecvente informații menționate despre silixul de Prut sunt gama sa de culori (de la negru la gri-maroniu) și arealul său de ocurență de-a lungul Văii Prutului mijlociu, între Rădăuți-Prut și Liveni/Ștefănești. Cu toate acestea, majoritatea lucrărilor care prezintă investigații microscopice asupra silixului de Prut s-au dovedit a conține informații insuficiente pentru o caracterizare și o comparație consistentă între probele arheologice și cele geologice și, prin urmare, pentru o proveniență credibilă. Analizele microscopice recente ale materialelor arheologice din Bazinul Ceahlău au demonstrat că în cadrul categoriei silix de Prut erau ascunse cel puțin două tipuri distincte. Această contribuție aduce, de asemenea, date geologice și petrografice proaspete derivate din noile cercetări efectuate pe Valea Prutului mijlociu (județul Botoșani, Nord-estul României) și pe Valea Nistrului mijlociu (raioanele Ocnița-Șoldănești, Republica Moldova). Pe baza noilor date, se propune o clasificare petrografică a materialelor silicioase din văile Prutului și Nistrului.

1. PRUT FLINT¹

You’ve probably heard of this term, used by archaeologists to designate the raw material associated with knapped lithics from Palaeolithic and Neolithic sites in north-eastern Romania. If you’ve heard of it, then you know Prut flint has a long research history, but here’s what I have to say about it².

The presence of this material was first noticed in the late 1950s by the archaeologists who discovered and excavated the Palaeolithic sites from the Middle (Nicolăescu-Plopșor, Petrescu-Dîmbovița 1959, p. 52; Nicolăescu-Plopșor *et alii* 1961a, p. 38–39; Nicolăescu-Plopșor *et alii* 1966, p. 23–24; Păunescu 1970a, p. 88)

of the flint and chert types occurring on the Middle Prut and Dniester valleys (Section 5). The information from previous publications is also contrasted with the new data on the Prut flint (Annex A), while the comparison in Section 5 is based on the petrographic data presented in: **Annex A**, regarding the geological materials collected from the Middle Prut Valley between Darabani and Ripiceni (MidPrut research perimeter, Botoșani County, north-eastern Romania); **Annex B**, regarding the geological materials collected from the Middle Dniester Valley between Naslavcea and Vadul Rașcov (MidDn research perimeter, Ocnița-Șoldănești districts, Republic of Moldova); **Annex C**, regarding the origin control samples from origin sites in the Khotyn area of the Middle Dniester Valley (MidDn research perimeter, Chernivtsi Oblast, Western Ukraine). Annexes A–C were written as stand-alone texts, containing all the information derived from the new field and laboratory work. The research strategy is briefly described in Sections 1–2 of Annexes A–C, and in more detail in **Appendix I**.

¹ In this paper, all raw material names mentioned are understood in their original connotations as referenced in relation to a researcher’s work. If applicable, their particular meaning can be derived, while reading, from the context. To put them in brackets or write them with italics each time they are mentioned would overburden the text. In the literature cited (written both in Romanian and French), the archaeologists use the term *silix* and this was translated as flint because it was associated with the material from the Prut. In Section 5 of the paper, the term flint is understood as a nodular chert from chalk deposits. For more information regarding this subject, see Ciornei 2023, p. 28, note 4.

² This contribution contains a review of archaeological and petroarchaeological publications in which the Prut flint is mentioned and described (Sections 1–4), followed by a petrographic comparison

and Lower (Nicolăescu-Plopșor *et alii* 1961b, p. 24) Bistrița Valley. There is no doubt that Nicolăescu-Plopșor is the one who coined the term Prut flint.

However, “at home”, *i.e.* Palaeolithic assemblages found along both banks of the Middle Prut Valley, this material was initially described as a Cretaceous flint from the Cenomanian deposits outcropping at Mitoc and Șerpenița (Moroșan 1938, p. 16, 21, 41, 54, 67, 71). Even after the term Prut flint was already in use for the Palaeolithic assemblages in the Bistrița Valley, the predominant raw material at Mitoc – *Malul Galben* was called flint (Nicolăescu-Plopșor, Zaharia 1959, p. 14; Chirica 1975, p. 7–13) or black quarry flint and bluish-whitish flint (Nicolăescu-Plopșor *et alii* 1959, p. 36), at Mitoc – *Valea Izvorului* it was called bluish Cretaceous flint (Bitiri 1965a, p. 10; Bitiri 1965b, p. 435–436), and at Ripiceni – *La Izvor* it was called good quality flint (from black to grey or dark blue to whitish) gathered from the gravels of the Prut (Păunescu 1964, p. 325; 1965, p. 7).

The name Prut flint was also used to designate the main raw material found in Neolithic (Comșa 1968, p. 29–30; Păunescu 1970a, p. 54, 62; Comșa 1975, p. 113; Comșa 1976, p. 244) and Bronze Age (Păunescu 1970a, p. 80) sites from Moldavia, while the raw material from Mitoc – *Valea Izvorului* was eventually called bluish Prut flint (Bitiri, Cârciumaru 1978, p. 469). However, by the time of this last mention, the name Prut flint was already associated with the geological flint originating from the Cretaceous deposits between Rădăuți-Prut and Ștefănești in the Middle Prut Valley (Comșa 1975, p. 109).

In addition to its presence in Palaeolithic sites along the Bistrița Valley (Ciornei 2023, Tabs. 1A, 1B), Prut flint is also mentioned in other archaeological sites in Romania, Ukraine and Hungary (see Tab. 1), at distances of over 600 km from the presumed occurrence area. However, of 32 reviewed mentions regarding Prut flint in various prehistoric assemblages (Tab. 1), only seven of them were based on microscopic analyses or other investigation techniques. For some of these sites (Săcălușești, Palaeolithic sites in Oaș and Maramureș areas, Esztergom – Gyurgyalag), the presence of the Prut flint is doubtful or unproven (see Tab. 1 and the discussion in the footnotes). Although the macroscopic confirmations were made by archaeologists very familiar with Prut flint, they should be considered with caution, because in some of the respective assemblages, other types of flint were confirmed by subsequent microscopic investigations (such as for Erbiceni or Cremenea sites, see Tab. 1 and the discussion in the footnotes).

In fact, the term Prut flint (as an archaeological raw material category) has a long history of being misused, as its petrographic content was stretched beyond its body (*i.e.*, the petrographic content as a geological material) and its home (*i.e.*, the occurrence area associated with the

name). This statement will be proven in the following lines (Sections 2–4).

2. THE HOME OF THE PRUT FLINT

As already mentioned, the Prut flint originates from the Upper Cretaceous (Cenomanian) chalky limestones, but also from a Miocene (Badenian) conglomerate sitting on top (see various accounts in Tab. 2 and Annex A/Section 1). These deposits outcrop on a limited area along the Middle Prut Valley between Rădăuți-Prut and Liveni/Ștefănești. These are the most frequently cited locations, but alternative (between Rădăuți-Prut/Miorcani and Mitoc) or more detailed descriptions of the occurrence extent are encountered in the archaeological (Tab. 2) and geological (Annex A/Section 1) accounts. In the reviewed literature there is no consensus regarding the exact outcrop area. In the archaeological literature of the late 1970s and mid-1980s, the Prut flint is considered to be of Buglovian age (Bitiri, Cârciumaru 1978, p. 469; Marinescu-Bîlcu *et alii* 1981, p. 24; Marinescu-Bîlcu *et alii* 1985, p. 658; Marinescu-Bîlcu *et alii* 1984, p. 43; Muraru 2000, p. 59–60; Cucuș, Muraru 1985, p. 607–608) and even the name Buglovian Prut flint is used (Bitiri 1981, p. 333). As it can be seen, this Buglovian age is associated with Ad. Muraru's work (and the archaeologists who collaborated with him), but was dropped after he analysed geological materials from Miorcani (Muraru 1990, p. 150–151).

In addition to the “primary” occurrence, the reviewed literature mentions that Prut flint can also be found in the gravels of the Prut River in the same area (Tab. 2 and Annex A/Section 1), while several archaeological accounts mention that Prut flint pebbles can be found up to Iași and even Galați (but see Tab. 3 and the discussion in the footnotes).

Based on data collected from field research in the Middle Prut Valley between 2021 and 2024 (see Annex A), some clarifications need to be made regarding the home of the Prut flint: 1) the Cenomanian deposits with flint described as limestones, marly limestones or chalky marls (see Tab. 2 and Annex A/Section 1) are in fact genuine chalk deposits; 2) the so-called Badenian conglomerate with flint nodules is actually an eluvium (a decalcified chalk deposit in which the nodules ended-up supporting each other without transport by water); 3) the outcrop area of these deposits can be pinpointed between Rădăuți-Prut/Miorcani (on the right side / Șerăuți on the left side) and Mitoc (on the right side / Viișoara on the left side); 4) at Ripiceni, flint can only be found in the gravel deposits of the Prut, as subrounded or subangular elements of pebble to cobble size.

Site	Archaeological period	County	Country	Raw material***	Examination	Distance from the source*	Direction**	References
Udești – Poiana	Palaeolithic	Suceava	Romania	Buglovian Prut flint	macroscopic	75 km	SW	Bitiri 1981, p. 333
Dolhasca – Dealul Viei	Palaeolithic	Suceava	Romania	Prut flint	macroscopic	80 km	SSW	Chirica, Tănăsache 1981, p. 270
Topile – Dealul Catargii	Palaeolithic	Iași	Romania	Prut flint	macroscopic	99 km	SSW	Păunescu 1970b, p. 543–544
Topile – Dealul Stricii	Palaeolithic	Iași	Romania	Prut flint	macroscopic	99 km	SSW	Păunescu 1970b, p. 546
Movileni – În Răzășie	Palaeolithic	Iași	Romania	Prut flint	macroscopic	>100 km	SSW	Păunescu 1966, p. 327
Târgu Frumos – Baza Pătule	Neolithic	Iași	Romania	Moldavian flint	microscopic (thin sections)	>100 km	S	Crandell, Vornicu 2015, p. 92
Erbiceni – Sub Budăi în Fânațul de pe Șes	Mesolithic	Iași	Romania	good quality flint gathered from Prut's gravels	macroscopic	100 km	SSE	Păunescu 1964, p. 325
Valea Lupului	Neolithic	Iași	Romania	Prut flint ³	microscopic (thin sections)			Turcanu 2009, p. 189–190
Topolița – La Iliei	Neolithic	Neamț	Romania	Prut flint	macroscopic	110 km	SSE	Comșa 1991, p. 18
Săcălușești – Dealul Valea Seacă	Neolithic	Neamț	Romania	Moldavian flint	macroscopic / microscopic (thin sections)	115 km	SSW	Crandell 2012a, p. 151–152
Ceahlău Basin sites (Dârțu, Podiș, Cetățica)	Palaeolithic	Neamț	Romania	Moldavian flint ⁴		115 km	SSW	
Bistrițioara – Lutărie III and La Mal, Ceahlău – Dârțu	Palaeolithic	Neamț	Romania	Prut flint	macroscopic	>130 km	SW	Nicolăescu-Plopșor, Petrescu-Dîmbovița 1959, p. 51–52
Isalia – Balta Popii	Neolithic	Iași	Romania	Prut flint	macroscopic / microscopic (thin sections)	>130 km	SW	Crandell et alii 2013, p. 39
Buda – Dealul Viilor	Palaeolithic	Bacău	Romania	Prut flint	macroscopic	>150 km	SSE	Vornicu 2017, p. 193
Mălușteni – Mălușteni IV	Palaeolithic	Vaslui	Romania	Prut flint	macroscopic	>160 km	SSW	Nicolăescu-Plopșor et alii 1961b, p. 22, 24
Puricani – Poarta Băzanului	Palaeolithic	Galați	Romania	Cretaceous Prut flint	macroscopic	>225 km	SSE	Brudiu, Păpușoi 1971, p. 28
Berești – Dealul Taberei	Palaeolithic	Galați	Romania	Prut flint	macroscopic	>230 km	SSE	Brudiu 1969, p. 8; 1970, p. 6
Berești – Dealul Bulgarului	Neolithic	Galați	Romania	Prut flint	macroscopic	>230 km	SSE	Brudiu 1971, p. 365
Călinești-Oaș – Călinești I	Palaeolithic	Satu Mare	Romania	bluish flint with white patina similar to the Cretaceous Prut flint / Cretaceous bluish flint (whiteish patina) from the Prut and Dniester ⁵	macroscopic	>230 km	SSE	Dragomir 1983, p. 74
* The distance was measured in a straight line from a midpoint between Cotu Miculiinți and Mitoc villages to the approximate location of each site included in this table.								
** The direction is from the source of Prut flint to the sites.								
*** The terms and descriptions from this column were taken from the authors cited in the Reference column, but it was not always possible to put them in quotations marks.								

Table 1. Selected mentions of Prut flint at archaeological sites from Romania and other countries.

³ The author (Turcanu 2009, p. 190) mentions that many of the artefacts considered to be flint from the Erbiceni assemblage turned out to be other types of cherts (after the examination of thin sections).

⁴ The illustrated artefacts of Moldavian flint from Săcălușești – Dealul Valea Seacă (Crandell 2012a, fig. 5) are in fact Volhyno-Podolian bioclastic flint.

⁵ Samples of Prut flint from the Upper Palaeolithic sites in Oaș and Maramureș areas (north-western Romania) were analysed in 2018 and all of them turned out to be Dniester Globotruncanidae flint (Ciornei, Mariș 2020, figs. 2/9–10, 6/7–8).

Site	Archaeological period	County	Country	Raw material	Examination	Distance from the source	Direction	References
Cremenea – <i>Malu Dinu Buzea</i>	Palaeolithic	Harghita	Romania	good quality bluish flint (resembling the Prut one) ⁶	macroscopic	>280 km	SSW	Pănescu 1966, p. 322-note 8
Budureasca – <i>Vadu Săpat</i>	Palaeolithic	Prahova	Romania	Prut flint	macroscopic	>340 km	SSW	Pănescu 1970a, p. 20
Măliaiești de Jos	Neolithic	Prahova	Romania	“silex de la Vallée du Prut”	macroscopic	>340 km	SSW	Fîrnculeasa, Niță 2006–2007, p. 133
Limba	Neolithic	Alba	Romania	Miorcani (Prut River) flint	microscopic (thin sections)	>340 km	SW	Crandell 2008, p. 42
Miercurea Sibiului – <i>Petriș</i>	Neolithic	Sibiu	Romania	Volhynian or Prut flint	macroscopic	>345 km	SW	Biagi 2015, p. 245–246
Taraschina	Neolithic	Tulcea	Romania	“silex B et C pourrait provenir du Prut”	macroscopic	>360 km	SSE	Furestier, Mihail 2011, p. 367–368; Furestier <i>et alii</i> 2017, p. 216; Furestier, Mihail 2022, p. 379
Tărtăria – <i>Gura Luncii</i>	Neolithic	Alba	Romania	Miorcani type Moldavian flint	microscopic (thin sections)	>360 km	SW	Crandell 2016, p. 191
Bodrogkeresztúr-Henye	Palaeolithic	Borsod-Abaúj-Zemplén	Hungary	Prut-Dniester flint	macroscopic by comparison to geological reference samples from the Lithothèque	>400 km	W	Lengyel 2015, p. 299
				Volhynian Cretaceous flint		>400 km	W	Lengyel 2018, p. 35
Cunești – <i>Măgura Cuneștilor</i>	Neolithic	Călărași	Romania	Oltenian flint (dark grey to blackish, translucent) resembling the Prut flint ⁷	macroscopic	>430 km	S	Comșa 1986, p. 55; Niță, Ștefan 2011, p. 196
Polgár Csőszhalom	Neolithic	Hajdú-Bihar	Hungary	Volhynian/Prut flint	macroscopic	>430 km	W	Faragó 2017, p. 87
Hódmezővásárhely-Gorza	Neolithic	Csongrád-Csanád	Hungary	Volhynian/Prut flint	macroscopic	>540 km	SW	Starnini <i>et alii</i> 2015, p. 112
Mira	Palaeolithic	Zaporizhzhia	Ukraine	apospiculate chalcedonolites of Lower Cenomanian age from Prut Valley	microscopic	>600 km	ESE	Stepanchuk, Petrougne 2005, p. 44
Esztergom-Gyurgyalag	Palaeolithic	Komárom-Esztergom	Hungary	(possibly) Prut silex ⁸	macroscopic and geochemical analyses (neutron activation analysis)	>600 km	W	Dobosi, Kövecses-Varga 1991, 248–250; Varga 1991, p. 269
				Transcarpathian Prut River flint		>600 km	W	Dobosi 2009, p. 118
				similar to Volhynian flint	macroscopic	>600 km	W	Lengyel 2018, p. 92
Ságvár	Palaeolithic	Somogy	Hungary	“flints of river Prut region”	macroscopic by comparison to geological reference samples from the Lithothèque	>650 km	WSW	Lengyel 2011, p. 95

Table 1. Continued.

⁶ The two pieces mentioned by Pănescu (1966, p. 322, note 8) were analysed in 2018 (Cr-MDB [03], Cr-MDB [04]) and they turned out to be Prut-Dniester spiculite flint and Dniester Globotruncanidae flint (Ciornei, Mariș 2020, figs. 2/11, 5/7, 6/1). In current terminology, Prut-Dniester spiculite flint corresponds to Prut flint types TDG and TLG (see Annex A).

⁷ Comșa (1986, p. 55) only makes the remark that the so-called Oltenian flint has visual traits similar to those of the Prut flint. Thus, the presence of this material at Măgura Cuneștilor is doubtful and unchecked.

⁸ At Esztergom-Gyurgyalag, the Prut flint lithics ($n = 1029$) amount to 93.6% of the assemblage at more than 600 km from the presumed source (Dobosi, Kövecses-Varga 1991, 248). However, the geochemical study concluded that the analysed samples are definitely not Volhynian flint, but could be (equal possibility) either Prut or Nagytelek flint (Varga 1991, p. 269). The Prut flint lithics were considered by Lengyel (2018, p. 92) macroscopically more similar to the Volhynian flint from the Dniester Valley.

Denomination	Geological context	Geological stage/age	Primary source area	Secondary deposits	References
silex crétacé	-	Cénomannien (Crétacé)	le long du Prut, à Șerpenița et à Mitoc	en abondance dans les dépôts des terrasses des environs	Moroșan 1938, p. 21,
blue cretaceous flint	limestone deposits	-	at the base of „Piscul Ghirenilor”	in the alluvium of the Prut	Bitiri 1965a, p. 8, 10
flint	-	Cenomanian	between Rădăuți-Prut and Mitoc	-	Păunescu 1970a, p. 83–84
silex “de Prut”	calcaires crayeux avec divers accidents siliceux	Cénomannien-Sénonien	“le long de la rive du Prut et de quelques petites vallées qui y débouchent, entre les localités Rădăuți-Prut et Ștefănești (dép. de Botoșani)”	-	Comșa 1975, p. 109–111
-	sables agglomérés avec des éléments de silex	Tortonienne	Rădăuți-Prut et Miorcani	-	Comșa 1975, p. 109–111
Prut blue flint	limestone	Buglovian	near Mitoc	-	Bitiri, Cărciumaru 1978, p. 469
flint	flint in limestones deposits	Buglovian	valleys of the Prut and Dniester	-	Marinescu-Bîlcu et alii 1981, p. 24, 29; Marinescu-Bîlcu et alii 1985, p. 658, 663
flint	-	Buglovian	on the right bank of the Prut between Rădăuți and Liveni	-	Marinescu-Bîlcu et alii 1984, p. 43; Muraru 2000, p. 59–60
flint	sandy horizon, microconglomerate	Buglovian	on the right bank of the Prut between Rădăuți and Liveni	-	Cucoș, Muraru 1985, p. 607–608
silex de la vallée du Prut / silex de la Plate-forme Moldave	“calcaires crayeux (épaisseur de 1 a 6 m) avec des concrétions de silex” “horizon conglomératique (épaisseur de 2–6 m) avec d’éléments arrondis de silex pris dans une matrice sableuse”	Cénomannien finale Badenien	“dans la vallée de la rivière de Prut entre les localités Rădăuți et Liveni” -	- -	Muraru 1990, p. 150–151
so-called Prut flint	-	Cenomanian	on the banks of the Prut River between Rădăuți-Prut, Mitoc, Ripiceni and Ștefănești	in the gravels of the Prut’s terrace near Ripiceni	Păunescu 1993, p. 179
Prut Flint	-	Cretaceous	in the middle Prut area, Liveni, Rădăuți-Prut, Ștefănești, Ripiceni, Mitoc	-	Boghian 1995, p. 10
so-called Prut flint	greyish-whitish marly limestones (1–6 m to 10 m thick) with a chalky appearance with flint concretions	Cenomanian	on the banks of the Prut River between Rădăuți and Liveni	-	Păunescu 1999, p. 45
-	conglomerates with flints (2–6 m thick)	Tortonian	on the banks of the Prut River between Rădăuți and Liveni	-	
Only Romanian texts were translated into English.					
The terms and descriptions from this table were taken from the authors cited in the Reference column, but it was not always possible to put them in quotations marks.					

Table 2. Mentions regarding the primary occurrence area of the Prut flint in archaeological and petroarchaeological papers from Romania.

Denomination	Geological context	Geological stage/age	Primary source area	Secondary deposits	References
Miorcani (Prut River) flint	-	-	along the Prut River near the border between Romania and the Republic of Moldova	-	Crandell 2008, p. 40
Prut Flint	whitish-grey marly limestones (1–6 m thick) with a chalky appearance, in which flint concretions are found	Cenomanian	Rădăuți-Prut-Liveni	-	Turcanu 2009, p. 184
so-called Prut flint	conglomerates with flints (2–6 m thick)	Tortonian			
	-	Cenomanian and Buglovian	along the middle Prut (between Liveni, Rădăuți-Prut, Mitoc, Ripiceni and Ștefănești)	-	Boghian 2008, p. 43–44; 2009, p. 120
Moldavian flint	flint nodules in limestones (chalky marl)	Upper Cretaceous	along the Upper Prut and Dniester Rivers	pebbles and cobbles in the alluvial sediments of the same rivers	Crandell 2012a, p. 71, 73
	chalky marl	Cenomanian	throughout the Moldavian plateau between the Upper Prut and Upper Dniester rivers	fluvial deposits south of this area	Crandell 2012b, p. 147–148
	flint nodules in chalky marl	Cenomanian	along the Upper Prut and Dniester Rivers	pebbles and cobbles in the alluvial sediments of the same rivers and the surface between them	Crandell 2013, p. 127
	cobbles in conglomerates	Badenian	near these rivers outcropping	-	
	-	-			Crandell <i>et alii</i> 2013, p. 39
	limestones (chalky marl to be precise) with flint	Cenomanian	along the Upper Pruth River and as far away as the Răut and Dniester Rivers	pebbles and cobbles in the alluvial sediments of the same river	Crandell, Vornicu 2015, p. 89–92
Miorcani type Moldavian flint ⁹	flint nodules in chalky marl	Cenomanian	along the Upper Prut and Dniester Rivers	pebbles and cobbles in the alluvial sediments of the same rivers and the surface between them	Crandell 2016, p. 189
	cobbles in conglomerates	Badenian	along the Upper Prut and Dniester Rivers	-	Crandell 2016, p. 189
Prut flint	-	Cretaceous	on the right side of the Prut between the nowadays localities of Miorcani and Mitoc and on the left side of the same river between the localities Lipcani and Bădrăgi	-	Vornicu 2017, p. 193
For a detailed review of the geological data regarding the occurrence of the Prut flint, see Văleanu (2015a; 2015b).					

Table 2. Continued.

⁹ On the map illustrating the source area of the Prut flint (Comsa 1975, fig. 1), gravel deposits with this material are represented along the Prut up to Iași. On maps in Crandell's papers (Crandell 2012a, fig. 1; 2013, fig. 2; 2016, fig. 7; Crandell, Vornicu 2015, fig. 1), the source of the Miorcani type of Moldavian flint is represented along the Prut all the way almost to Galați! But see discussion in Tab. 3 and the footnotes.

No.	"Rolling on the river"	References
1	"[...] Au S de Ripiceni, les grandes concrétions de silex deviennent de plus en plus rares. Elles y sont réduites à de petits morceaux dans le gravier arrondi, provenant des régions au les dépôts cénomanien à silex affluent dans le lit du Prut ou de ses tributaires : [...]"	Moroşan 1938, p. 60
2	"A l'extrémité N du bourg de Sculeni, au point dit La Izvoare, là où le Prut attaque la rive gauche, on observe une coupe dont la succession des couches est la suivante : [...] m) 0,50 m de conglomérat de gravier de terrasse. La plupart des éléments de quartzite et de silex atteignent la grosseur d'un œuf de poule." ¹⁰	Moroşan 1938, p. 62–63
3	"[...] non loin des villages de Gherman et de Dumeni. La stratigraphie des dépôts de bas en haut est la suivante : [...] b) Les dépôts de terrasse [...] sont formés d'une couche épaisse de 4,20 m de gravier, a petits éléments de silex et de gravier carpatique, mélangés avec beaucoup de sable."	Moroşan 1938, p. 65
4	"[...] les eaux du fleuve ont charrié de ces blocs de silex, de différentes tailles, vers le sud, en aval de la localité de Sculeni."	Comşa 1975, p. 109
5	"[...] we specify that larger or smaller lumps of such flint were found – and are still found – in the gravel of the Prut, rolled by the waters, along the river, up to approximately the city of Iaşi." ¹¹	Comşa 1991, p. 18
6	"On the left bank of the Prut, the well-known archaeologist [N.N. Moroşan] observed in the terrace deposits at Sculeni (at the Izvoare point), as well as in those located about 5–6 km north of it (at Gherman-Dumeni), gravels containing quartzites and flints reaching the size of a bird's egg. Both points are located approximately 90–95 km and 100 km (as the crow flies) respectively south-southeast of Mitoc."	Păunescu 1999, p. 46-note 18
7	"[...] The flints were transported and are found in the alluvium of the Prut River, near the city of Galaţi; the pebbles measuring up to 5–6 cm in diameter, sometimes even larger."	Văleanu 2003, p. 16
8	"[...] on the Prut River, where flint pebbles transported from the north, from the Mitoc area, can be found in alluvium, up to near Galaţi."	Văleanu 2003, p. 197
9	"[...] Small and medium-sized rolled pebbles of Prut flint were carried downstream by the river's waters, found, in varying proportions, in its pebbles, all the way to Galaţi."	Boghian 2009, p. 120
10	"Larger or smaller lumps of such flint were, and are still found today, in the gravel of the Prut River, rolled by the waters along the river to approximately near Galaţi." ¹²	Turcanu 2009, p. 185
11	"[...] the flint nodules displaced by the Prut River can be found in the alluviums downstream, as far as in the vicinity of Galaţi town, near the place where the Prut flows in the Danube." ¹³	Vornicu 2017, p. 194
12	"[...] les silex dénommés B et C pourrait provenir du Prut (Boghian 2008), et déposés jusqu'aux alentours de la ville de Galaţi. Mais cette hypothèse doit être confirmée." ¹⁴	Furestier et alii 2017, p. 216
13	"[...] Pour la moyenne vallée du Prut, les galets originaires des dépôts crétacés de la plateforme de Moldavie (Vornicu, 2017) ont pu être transportés jusqu'aux environs de la ville de Galaţi [...]" ¹⁵	Furestier, Mihail 2022, p. 379
Only Romanian texts were translated into English.		

Table 3. Mentions in archaeological papers regarding the Prut flint in gravels further afield from the main occurrence area.

¹⁰ This is the original information about flint in the Prut's gravels at Sculeni (on the Moldovan side), about 20 km N of Iaşi, which is only mentioned by Păunescu (1999, p. 46) in relation with flint occurrences downstream from Ripiceni. There is one thing that needs to be underlined here: **the flint elements in the gravels from Sculeni are as small as a chicken egg!**

¹¹ Comşa (1975, p. 109; 1991, p. 18) did not quote any paper on this information, nor did he mentioned seeing with his one eyes or collecting flint from the gravel deposits around Iaşi. The same holds true for Văleanu (2003, p. 16, 197) and Boghian (2009, p. 120) regarding Galaţi.

¹² Turcanu (2009, p. 185-note 22) refers to the works by Comşa (1991, p. 18) and Văleanu (2003, p. 197). Turcanu (2009, p. 185) quoted, almost word for word, the paragraph from Comşa (1991, p. 18) and changed the name of the city Iaşi with that of Galaţi (following the information from Văleanu 2003, p. 197).

¹³ Vornicu (2017, p. 194-note 22) refers to the work by Văleanu (2003, p. 16). Based on a wrong interpretation of the cortex appearance of three small nodules from Isalia-Balta Popii, Vornicu (2017, p. 194) considers that they were most probably gathered from "[...] the shores of the Prut River, which now runs at about 5 km from the site [...]". The characteristics of the cortex for the three small nodules are not those of siliceous materials transported by waters on long distances (see Annex A/Pls. A23–24 and compare with Vornicu 2017, pl. II/1–3).

¹⁴ Furestier et alii (2017, p. 216) refer to a work by Boghian (2008), which is an Italian version of Boghian (2009).

¹⁵ And this is how unchecked information circulated by Văleanu (2003, p. 16, 197) reached beyond Galaţi, all the way in Northern Dobruja at Taraschina. If the flint elements at Sculeni are as small as a chicken egg, how large would they be at Galaţi? Would they still be usable as raw material for knapping?

3. THE BODY OF THE PRUT FLINT

The Prut flint was established as an archaeological raw material category for the Palaeolithic assemblages in the Bistrița Valley based on visual characteristics and a handwritten petrographic note by the geologist Th. Joja, dated to March 1956 (Ciornei 2023, tab. 1A and p. 34–35/note 41). This handwritten note states that the microscopic traits seen in thin sections of flint artefacts with white-bluish patina (brown-orange in fresh surface)¹⁶ are very similar to those of flint from Miorcani village on the Prut Valley. This statement is partially true, as my diagnoses of these thin sections showed that there are two types of flints and other chert types represented (see Ciornei 2023, p. 38 and tabs. 2–5).

When E. Comșa (1975, p. 109) associated the archaeologically derived denomination of Prut flint to the geological material from the Middle Prut Valley, he also incorporated the petrographic descriptions made by the geologist working in the Rădăuți-Miorcani area (see Comșa 1975, p. 111).

The bulletins of petrographic analysis published by Păunescu (1970a, p. 217–227) were issued in the late 1950s and early 1960s by C. Papacostea and C. Voiculescu from the Prospecting and Laboratories Enterprise of the Geological Committee (see Ciornei 2023, p. 34). These bulletins describe archaeological samples from various sites (Ripiceni – *La Izvor*, Ceahlău – *Podiș*, Ceahlău – *Scaune*, Traian – *Dealul Viei*, Larga – *Jijia*, Hăbășești, Traian – *Dealul Fântânilor*, Horodiștea, Molodova). Still, Al. Păunescu did not employ these microscopic determinations when discussing the raw materials used for knapped tools in the cultural entities depicted in his book (Păunescu 1970a, p. 11–82). The bulletins of petrographic analyses are mentioned only when the raw material sources are described (Păunescu 1970a, p. 84). Nevertheless, you must keep in mind that Păunescu was not a petroarchaeologist and that the focus of his book was on the chronological evolution of knapped tools. For a long time, these bulletins remained in obscurity. They resurfaced in the monography of Ripiceni – *La Izvor* site (Păunescu 1993, p. 179), but again the microscopic information remained just a footnote.

Subsequent petrographic analyses of the Prut flint, published in archaeological and petroarchaeological works, can be separated into those performed: a) only on archaeological samples (nos. 1–7, 16 in Tab. 4); b) both on archaeological and geological samples (nos. 8–15 in Tab. 4); c) only on geological samples (no. 6 in Tab. 4). Viewed from a chronological perspective, these petrographic analyses are divided into: a) those carried between 1980 and 1990,

comprising a group of papers centred on Ad. Muraru's work (nos. 1–6 in Tab. 4); b) those performed since the late 2000s, covering works by various researchers (nos. 7–16 in Tab. 4). The papers featuring microscopic investigations on the Prut flint (see Tab. 4) vary in both quality and consistency. In many of them, the microscopic description is actually missing (nos. 3–4, 7–10, 12, 15 in Tab. 4), and in some of them, even the macroscopic description (nos. 3, 12–13 and 15 in Tab. 4).

Muraru's earlier works (nos. 3–4 in Tab. 4) included only general descriptions of flint, taken from petrography textbooks, and colour inventories for the artefacts. This changed after he analysed geological materials from Miorcani (no. 6 in Tab. 4). This was the first petrographic description of the geological Prut flint made by a researcher involved in the characterisation of archaeological materials. It was and still is a very good petrographic analysis. It was his last petrographic account and, because he disappeared from the emerging petroarchaeological framework, it remained ignored by many researchers. Before moving on, I have one observation to make regarding the macroscopic description: the flint samples analysed by Muraru range in colour from ash to brown (no. 6 in Tab. 4). Comparing this with the macroscopic description of the Prut flint from Neolithic sites (no. 5 in Tab. 4) shows that the colour black is missing from the geological account. This means he did not analyse geological samples from the black flint. And, based on my own experience, there is a lot of black flint on the Prut Valley (see Annex A/Sections 2–3). So, the obvious conclusion is that Muraru did not analyse flint samples covering the entire geological sequence.

Looking at the second batch (nos. 7–16 in Tab. 4), the prolific work of O. Crandell is promptly noted, as he analysed both geological and archaeological samples of Prut flint. Nevertheless, compared to the microscopic descriptions of other authors (nos. 1–2, 5–6 in Tab. 4) or my own (Subsection 2.1 in Annex A), those made by Crandell (nos. 11, 12–13 in Tab. 4) are particularly devoid of any information that could be used to characterise this material and differentiate it from others with similar visual traits. Therefore, all his diagnoses regarding the Prut flint (or, as he calls it, Miorcani flint), and implicitly the presence of this material in various archaeological sites (see Tab. 1), should be considered with great caution, and the materials reanalysed!

In archaeological and petroarchaeological papers from Romania (Tabs. 1 and 4), the most frequently mentioned characteristic of the Prut flint is its range of colours. The petrographic reality of the Prut flint, embodied by this range of colours, can be grouped into five types (from black to light grey) that have a strict vertical distribution in the flint sequence of the Middle Prut Valley between Rădăuți-Prut/Miorcani and Mitoc (see Annex A/Sections 2–3).

¹⁶ Later, one of the original excavators (Păunescu 1998, p. 47) restricts the use of the name Prut flint from the Palaeolithic assemblages in Bistrița Valley exactly to the flint with white-bluish patina (brown-orange in fresh surface).

No.	Macroscopic traits	Microscopic traits	References
1	"Dark bluish to black rock, compact and finely crystalline; glassy lustre, conchoidal, angular or straight break."	"The groundmass of the sample is made up of cryptocrystalline quartz, with a transparent silty-pelitic appearance, with very small areas of clay and ferromanganese minerals arranged in a dendritic manner. Small fragments of organisms and sponge spicules, foraminifera filled with opal are observed. The areas of chalcedony and opal are arranged in the cryptocrystalline mass in an accidental manner. Sporadically, muscovite flakes and grains of recrystallized quartz and detrital quartz with irregular edges appear."	Păunescu 1970a, p. 217–bulletin no. 1; Păunescu 1993, p. 179
2	"White rock with bluish-grey hues, cryptocrystalline structure, conchoidal break."	"The groundmass of the sample is made up of cryptocrystalline quartz with small deposits of transparent fibrous chalcedony and slightly yellowish coloured opal. Sporadically appear fragments of radiolarians, detrital quartz with rolling extinction and irregular contours and silicified foraminifera that attest the presence of an initially calcareous rock."	Păunescu 1970a, p. 217–bulletin no. 2; Păunescu 1993, p. 179
3	-	-	Marinescu-Bîlcu et alii 1981, p. 24; Marinescu-Bîlcu et alii 1985, p. 657–658
4	"[...] the specimens evidenced a wide chromatic range, with gradual transition from milky-white to black, through greyish white, yellowish, greyish brown and brown."	-	Marinescu-Bîlcu et alii 1984, p. 43; Muraru 2000, p. 59;
5	"[...] our pieces have a wide chromatic range, with visible gradual transitions from milky white, greyish white, yellowish, brown, grey, to black. [...]"	"Microscopic analysis of thin sections of the flint also revealed a banded structure of the larger nodules, as well as the presence of numerous remains of microscopic fossil organisms, especially foraminifera, but also sponge spicules. Among these, the genus <i>Globotruncana</i> could be determined. The rock mass is made up of an association of fine grains of chalcedony and opal between which the fossil remains are trapped. From place to place, fine stripes of micritic limestone can be observed, suggesting some banding."	Cucoş, Muraru 1985, p. 606–607
6	"[...] La couleur du silex va d'habitude du cendre jusqu'au brun, avec une gamme étendue de nuances intermédiaires. La couleur peut être uniforme mais il y a aussi des variations de nuances plus ou moins soudaines, sur un même échantillon."	"Vu au microscope, le silex se présente comme une masse compacte de calcédoine a aspect granulaire. Les dimensions des granules vont de 0.01 à 0.05 mm. Ils sont constitués de fibres disposées de manière radiale ou irrégulière. L'opale n'apparaît que de façon secondaire représentant tout au plus 5% de la composition minéralogique. Des granules opaques à contour irrégulier apparaissent fréquemment. Des bioclastes reliques de calcite ne sont observés que rarement. Les restes fossiles sont particulièrement nombreux et sont représentés par des grains de spores et de pollens, par des tests de foraminifères, de radiolaires et par des spicules de spongiaires. La calcédoine peut se présenter sous forme de sphérulites à contour circulaire parfait et net par rapport à la masse générale. Par endroits, les concentrations de sphérulites donnent naissance à des structures a aspect perlitique."	Muraru 1990, p. 151
7	"A) a variety of flint that in the alteration surface has a colour that varies from ashy-grey to almost black or even black;" "B) a variety of black flint, speckled with whitish spots;" "G) a variety of grey-ash flint."	-	Turcanu 2009, p. 184–185, 190
Only Romanian texts were translated into English; all papers included in this table specifically mention that microscopic investigations were being performed.			

Table 4. Petrographic traits of Prut flint reflected in some archaeological and petroarchaeological papers from Romania.

No.	Macroscopic traits	Microscopic traits	References
8	"[...] It is light brown to black, translucent to highly translucent, dull to satiny, with a very fine grained surface, and often contains relics of its parent rock (chalk). [...]"	-	Crandell 2008, p. 40
9	"[...] sub-opaque, light grey, sub-translucent light brownish-grey, or a highly translucent dark brown (coffee-coloured). [...]"	-	Crandell 2012b, p. 73
10	"[...] Based on the samples of this material, there did not appear to be any macroscopic or microscopic differences between flint from the Prut or the Dniester."	-	Crandell 2012b, p. 73
11	"[...] Visually this material varies from an off-white or tan colour to almost black with possible whitish spots. It breaks with a conchoidal fracture and has a smooth surface. [...]"	"[...] This material is composed almost entirely of very fine, equigranular quartz (Figure 3.a)."	Crandell 2012a, p. 147–148
12	-	-	Crandell 2013, p. 127
13	-	"This flint is very fine grained and with the exception of occasional small Fe oxide and hydroxide particles and possible areas of calcium carbonate, this material is devoid anything but quartz (Figure 6 a. & b.). [...]"	Crandell <i>et alii</i> 2013, p. 39
14	"[...] sub-opaque, light grey, sub-translucent light brownish-grey or a highly translucent dark brown (coffee colored). [...]"	"[...] almost completely composed of very fine, equigranular quartz. Other than where the quartz is mixed with calcite, Fe oxide or Fe hydroxide, both are relatively devoid of other minerals. Occasional larger quartz crystals (25µm being common, and up to 50µm) or opals appear. [...]"	Crandell, Vornicu 2015, p. 92
15	-	-	Crandell 2016, p. 189
16	Upper Cretaceous nodular chert from the Middle Prut Valley (Prut flint)		Ciornei 2015, p. 51–53
	bluish dark grey/blackish, translucent	bioclastic chert (microfacies [05a], sample Le-Lu [15]), wackestone, very fine sand, bioclastic-peloidal siliceous cementstone (cryptocrystalline quartz) ¹⁷	
	clear greyish brown, very translucent	spiculite chert (microfacies [05cd], Le-Lu [19]), wackestone, fine sand, bioclastic siliceous cementstone (cryptocrystalline quartz) ¹⁸	
	clear black, very translucent	Globotruncanidae chert (microfacies [05bc], sample Le-Lu [17]), wackestone, fine sand, planktonic foraminifera siliceous cementstone (cryptocrystalline quartz) ¹⁹	
	very dark grey, very translucent	cementstone chert (microfacies [05b], sample Le-Lu [16]), mudstone, very fine sand, siliceous cementstone (cryptocrystalline quartz) ²⁰	

Table 4. Continued.

¹⁷ In current terminology this corresponds to Prut flint type FB (see Annex A).¹⁸ In current terminology this corresponds to Prut flint type TLG (see Annex A).¹⁹ It was designated under the Prut flint based on its similar macroscopic traits with Prut flint materials published by Crandell (2012a, fig. 5), even if this sample was microscopically different from the others in this grouping. In current terminology this corresponds to Volhyno-Podolian bioclastic flint (see Annex C).²⁰ This sample contained no fossils, but it was erroneously assigned as Prut flint. In fact, this is a hydrothermal chert.

4. THE SPIRIT OF THE PRUT FLINT

In addition to the Prut flint, E. Comşa presents two lesser-known materials that appear in Neolithic sites in Moldavia: 1) Ibăneşti flint (Silex “d’Ibăneşti”), a translucent material, dark brown or dark brown-coffee in colour, observed in assemblages in the Siret-Prut area and considered to originate from the hilly landscape around Ibăneşti locality in Botoşani County (Comşa 1968, p. 30–31; 1975, p. 114; 1976, p. 244); 2) Central-Moldavian flint (Silex “de Moldavie centrale”), a translucent light brown material speckled with white (or light coffee-brown with small white spots) noticed in assemblages from the central part of Moldavia (Comşa 1968, p. 29; 1975, p. 114; 1976, p. 244–245). These terms did not make a career, most probably because, as E. Comşa remarked about the Ibăneşti flint, they have similar visual traits to and could be “lost” among Prut flint artefacts in a given lithic assemblage. The field data from 2021 suggests there are no deposits that could bear flint in the hilly landscape from Darabani-Ibăneşti area (see Annex A/Section 1).

Also, E. Comşa (1976, p. 245) mentions the use of a dark grey flint in Neolithic sites from the Middle Dniester valley, in the north-eastern part of the Republic of Moldova. Notable is the fact that E. Comşa didn’t brand this material with a specific name. However, the Romanian archaeological literature from the same period mentions the sporadic presence of Dniester flint in some Palaeolithic sites from Moldavia, but more frequent in Neolithic sites in the same area (Tab. 5). The Dniester flint was described as a siliceous material with colours such as dull milky whitish, “dirty” white, greyish-white, light grey or whitish-bluish. This material was presumed to originate from Cenomanian deposits in the Middle Dniester Valley (between Ataki and Naslavcea). The new data from the Middle Dniester Valley suggests that the situation of the siliceous materials encountered in this area is more complex than considered by previous archaeological accounts, as several types can be differentiated based on petrographic traits and stratigraphic position (see Annex B).

Recent microscopic analyses (Ciornei, Mariş 2020, p. 47; Ciornei *et alii* 2022, p. 32–33; Ciornei 2023, p. 38 and Tabs. 2–5) of archaeological materials from Ceahlău Basin sites demonstrated that at least two distinct types were hidden within the Prut flint category: 1) Dniester Globotruncanidae flint²¹ (from Turonian chalks outcropping on the Upper Dniester Valley in Dubivitsi area), a dark grey-smoky or brownish-smoky very translucent flint; 2) Prut-Dniester flint (from Cenomanian chalks outcropping on the Middle Prut and Middle Dniester valleys), a black/dark grey to light grey semi-opaque to translucent flint.

This last denomination (Prut-Dniester flint) was derived from the fact that a similar type of flint was recognised in the archaeological samples from Ripiceni (on the Prut) and Oselivka (on the Dniester). Although I still maintain my petrographic diagnoses (see Subsection 2.1 in Annex C), I must admit that I forced this designation: beyond the petrographic data and against my meticulous nature; by assuming that it was procured locally by the Palaeolithic people of both sites, which might not be true for Oselivka (but this needs to be proven first).

However, the term Prut-Dniester flint was originally proposed by D. Boghian (2008, p. 45; 2009, p. 121), who claimed that the same type of Cenomanian flint can be found in both Prut and Dniester valleys. This claim was based on bibliographic accounts and, by the photographs he published (Boghian 2009, fig. 4), visits made to outcrops in both areas. Going along the same lines, Crandell has used the terms Miorcani (Prut River) flint, Moldavian flint or Miorcani type Moldavian flint to designate the material found in the chalky marls of Cenomanian age and the Badenian conglomerates that crop out in the Prut and Dniester valleys and in the interfluvium between these two rivers (see Tab. 2). This researcher also noted that there are no macro- and microscopic differences between the flint from these two valleys (see no. 10 in Tab. 4). Nonetheless, he presented no direct evidence for this latter claim, relying only on geological accounts that described the two areas as having similar geological sequences, which also included flint.

It is no secret that the Cenomanian deposits with flint extend towards the Middle Dniester Valley in the Republic of Moldova and Ukraine (for an extensive list of geological papers, see Păunescu 1999, p. 47; Văleanu 2015a; 2015b²²). It is also no secret that geologists give a different importance to chert in their accounts, compared to archaeologist and petroarchaeologists. Therefore, the geological accounts of flint from the Middle Prut and Middle Dniester valleys should be considered as a starting point for further research, not as a *datum*, which is why, I invite you to read, in the next section, about the new data regarding the siliceous materials from the Middle Prut and Middle Dniester valleys.

²¹ In current terminology, Dniester Globotruncanidae flint corresponds to Volhyno-Podolian bioclastic flint (see Annex C). Although it was not recognized in Palaeolithic sites from Romania until recently (Ciornei, Mariş 2020, p. 47), the Volhynian flint has been mentioned in Neolithic sites from Moldavia since the beginning of the 1970s (Spinei 1970, p. 38–39; Spinei 1971, p. 101–104).

²² Although published as two separate papers in two different journals, one in English and one in Romanian, make no mistake, they are one and the same thing. Besides the extensive review of the geological literature regarding the flint materials found on the Middle Prut and Middle Dniester valleys, Văleanu’s papers contain a comprehensive account of the field research carried by him on the Middle Prut Valley (1997–1998, 2013, 2014–2015) and his visit to the outcrops from the Middle Dniester Valley in Naslavcea area (2015). Most of the locations presented by Văleanu were used as a starting point in my research (see Annex A). However, Văleanu’s papers do not contain a microscopic analysis of the Prut flint, while the macroscopic description of the materials is presented unsystematically, for each point along the outcropping area. He made no comments regarding the similarities or differences between the materials from the Prut and Dniester, despite he had a direct and personal experience with both areas and despite the fact he illustrated both the outcrops and the materials from Naslavcea (Văleanu 2015a, figs. 40–41, 43; 2015b, figs. 40–41, 43).

No.	Dniester flint	References
1	"[...] Both at Ripiceni and at Erbiceni, a very small number of tools (1.40 –1.50%) were discovered, especially blades, made of dull white flint. We believe that such pieces came here through exchange relations from the Upper Dniester region."	Păunescu 1964, p. 325–328
2	"[...] dans le gravettien et le tardenoisien, quelques pièces en silex pour la plupart typiques, taillées dans un silex mat-blanchâtre, dont la provenance devrait être recherchée dans la région de Dniestr supérieur ou moyen."	Păunescu 1965, p. 8
3	"The white-bluish flint is characteristic of the large quarries found along the Middle Dniester. It was intensively exploited for a long time, occurring hundreds of kilometres from the mines from which it was extracted. [...]"	Spinei 1970, p. 44; Spinei 1971, p. 93
4	"[...] or the whitish-bluish one, brought from the Middle Dniester area. [...]" [Cucuteni culture]	Păunescu 1970a, p. 54
5	"The pieces are made [...] as well as from white or white-bluish flint, so-called from Dniester [...]" [Horodiştea cultural complex]	Păunescu 1970a, p. 62
6	"The raw material is the same whitish or whitish-bluish flint, so-called from Dniester [...]" [Globular Amphora culture]	Păunescu 1970a, p. 64
7	"In many settlements from Moldavian region belonging to the Cucuteni culture, from all phases of its evolution, various objects made of whitish Dniester flint have been discovered."	Spinei 1971, p. 97
8	"White flint axes were found [...] also on the territory of Moldova in the Gorodsk-type settlements of Horodiştea and Erbiceni. [...]"	Spinei 1971, p. 98
9	"[...] a single piece [...] of Dniester flint [...]" [Dolhasca – Dealul Viei]	Chirica, Tănăsache 1981, p. 270
10	"The Dniester flint has the same Cretaceous age as the Prut flint, but it differs from it by a special mineralization, which gives it a non-transparent light grey or milky white (even dirty white) colour, sometimes with whitish dots due to calcareous micro-concretions." "An important flint "industry" developed in the settlements on the Middle Dniester, due to the proximity and richness of the local deposits. Thus, a series of flint extraction and exploitation workshops near Komarov, Germani, Ojevo (Cernăuți region) can be mentioned. [...]"	Boghian 1995, p. 10
11	"[...] The so-called Dniester flint, with alteration surfaces generally of a whitish-brown colour, is present in some Gravettian and Tardenoisian industries such as those at Ripiceni – Izvor and Erbiceni – Sub Budăi in the hayfield on the plain."	Păunescu 1999, p. 47
12	"[...] the flint which in the alteration surface has a whitish-matte colour (flint D), its provenance is, [...] the area of the Middle Dniester and its tributaries. It has a slightly larger granulation than that of the so-called Prut flint [...]"	Turcanu 2009, p. 185
Only Romanian texts were translated into English.		

Table 5. Selected mentions of Dniester flint in archaeological papers from Romania.

5. (NOT) JUST A PETROGRAPHIC COMPARISON

The materials used for this comparison are represented by: 1) geological samples from the surveyed areas along the Middle Prut Valley between Darabani and Ripiceni (MidPrut research perimeter, Botoşani County, Northeastern Romania; for details see Annex A); 2) geological samples from the surveyed areas along the Middle Dniester Valley between Naslavcea and Vadul Raşcov (MidDn research perimeter, Ocniţa-Şoldăneşti districts, Republic of Moldova; for details see Annex B); 3) origin control samples from origin sites in the Khotyn area of the Middle Dniester Valley (MidDn research perimeter, Chernivtsi Oblast, Western Ukraine; for details see Annex C). The methodological approach and information regarding the samples used in the analysis are provided in Annexes A–C and Appendix I. This extended study area covers the space between the Middle Prut and the Middle Dniester valleys (Pl. I). Before passing to the petrographic comparison, a few observations regarding the geological context of the materials are in order.

In this study, the information regarding the Volhyno-Podolian flint is derived from petrographic data on origin control samples with a presumed secondary geological context (see Annex C). The geological and petroarchaeological literature considers Volhyno-Podolian flint as derived from chalk deposits of Turonian age in the Volhynian and Podolian uplands.

MidDn research perimeter is far larger in terms of the area (sq. km) covered by field surveys than the MidPrut research perimeter (Pl. I). However, the body of data is in favour of the MidPrut research perimeter, from field research duration (four field campaigns vs one), number of field surveys (19 vs 5), number of collected samples (355 vs 138), number of samples analysed macroscopically (355 vs 200) and microscopically (100 vs 49). The limited number of field surveys for the MidDn research perimeter and the large area covered by them (Annex B) resulted in partial observations regarding the stratigraphic sequence (*i.e.*, the observed profiles do not allow their correlation in such a way as to generate a complete stratigraphic column, as is the case with the Prut flint sequence). Observations regarding the geological deposits for the Khotyn area in the MidDn research perimeter are missing completely.

Within the surveyed areas, there are three geological sequences containing flint and chert (see Tabs. A6, B5–B6; Pls. A2, B2–B3). Although it may seem otherwise, these sequences cannot be directly correlated based on geological data from literature (cronostratigraphically, these were framed differently) or field surveys (because of the partial observations made in MidDn research perimeter). So, what is their common ground? All three of them have a succession of Upper Cretaceous chalk with flint and eluvium with chert/flint (deposits resulted from the decalcification of chalk/limestone), followed by a Miocene sand/gravel with rounded chert/flint elements. All three contain a Cenomanian chalk layer with black flint at

the base: Prut flint type B in Miorcani-Mitoc area, Dniester flint type BF in Naslavcea area, and Dniester flint type BFF in Cureşniţa-Vertiujeni area. All three sequences show a gradual change in colours of the siliceous materials, from black at the bottom to light grey/grey-brownish at the top. What sets them apart? In Cureşniţa-Vertiujeni area, the chalk with black flint (type BFF) is followed by a chalk deposit without flint, a chalk deposit with medium grey flint (types PSCN and OMG), and then the eluvium with the medium grey (type OMG) and light grey-brownish flint (type TMB). In Naslavcea area, above the chalk with black flint lies an eluvium with dark grey flint (type FFB), followed by an eluvium with medium-grained chert (types GDG and GLG). Based on their geological contexts and microfossils, the flint and chert types from these three areas can be considered to cover the entire stratigraphic interval of the Upper Cretaceous, but the real geological age of the materials in the eluvium is unknown²³. For the Prut and Dniester materials (Annexes A–B) there is sufficient evidence (from petrographic traits to geological contexts and occurrences) to consider them as separate types within this Upper Cretaceous sequence.

The petrographic analysis of 254 geological and origin control samples from the study area (Tab. 6; Pl. I) allowed the distinction of four categories and 20 types of Upper Cretaceous flint and chert (Tabs. 7–9; Pls. II–III). Detailed characterisations of these types and their geological contexts are presented in Annexes A–C.

When their visual characteristics and microfacies are considered, the Volhyno-Podolian flint, on one hand, and the Prut flint/Dniester flint/Dniester chert on the other hand, are very easy to distinguish from each other (Tabs. 7–9; Pls. 2–3). All macro- and microscopic traits suggest that the Volhyno-Podolian flint is very different from the Prut and Dniester black and dark grey flint types (with which it can be confused by an untrained eye). You don't need any geochemical analyses or other high-tech investigation equipment to come to this conclusion. Volhyno-Podolian flint is composed of *Pithonella* and bioclastic detritus, while the Prut and Dniester flints are composed of phytoplanktonic remains and bioclastic detritus (for more details, see Annexes A–C).

More problematic are the visual similarities of the other Cretaceous flint and chert types from the study area:

²³ *Nota bene*, in all three areas the deposits here called eluvium have been considered as Miocene conglomerates containing little or not at all rounded flint nodules, and presumed to be eroded from the underlying deposits with flint. However, the flint nodules have no real signs of water transport (in all cases the cortex is as fresh as that of the flint from the chalk), the flint nodules support each other, small flint/chert splinters are present in the clayey or powdery-siliceous matrix (which should not be possible given the presumed genesis of these deposits, as they would be swept by the waters), enormous sandstone lenses are present in the eluvium at Naslavcea, and, more importantly, the colour of the flint/chert nodules changes upwards in the sequence (which again would not be possible in a deposit derived from water transport, they should be mixed).

1) there are four black flints (Prut flint type B, Prut flint type FB, Dniester flint type BFF, and Dniester flint type BF) that share the same visual traits (Pl. IV/1). Prut flint type B and Dniester flint types BFF and BF represent different physiographic variants associated with the Cenomanian chalk from the Middle Prut and Middle Dniester valleys. Prut B and Dniester BFF have an almost identical fabric (Pl. IV/6–9), but they can be differentiated based on their cortical-subcortical area (Pl. IV/6 vs. 4/8) and nodule shape and size: the BFF type occurs as rod-like or finger-like concretions (2–5 cm in diameter and from a few cm to more than 20 cm in length) and irregularly shaped nodules (around 10 cm in diameter), while the B type as branchy or irregular shaped nodules (around 10–15 cm in diameter, but also larger than 30 cm in diameter, more rarely as finger-like concretions). Field observations suggest type BFF has a lower abundance than type B in their respective landscapes. Dniester BF has a more bioclastic fabric, which is closer to Prut FB, but it lacks the phytoplanktonic component and they have different cortical-subcortical areas (Pl. IV/10–11 vs. IV/2–3). The type defined as similar to Prut flint type FB (Oselivka origin site) has the same fabric and visual traits as the Prut type FB (Pl. IV/1–5), and they are most probably the same type of flint²⁴;

2) there are four dark grey siliceous materials (Prut flint type TDG, Dniester flint type FFB, Dniester flint type TGB, and Dniester chert type GDG) that share the same visual traits (Pl. V/1). Prut flint type TDG and Dniester flint types FFB and TGB have a spiculitic character, but they are differentiated by their sponge spicules abundance, size, and fragmentation degree (Pls. V/10–11 vs V/4–5 and 5/8–9). Dniester detrital-rich spiculitic chert (Oselivka origin site) has a similar microfacies and visual traits as the Dniester chert type GDG (Pl. V/1) from Naslavcea area, but is less spiculitic and more bioclastic-intraclastic (Pls. V/4–5 vs. V/2–3);

3) there are three medium-light grey/brownish siliceous materials (Prut flint type TLG, Dniester flint type TMB, Dniester chert type GLG) that share general visual traits (Pl. VI/1). Prut flint type TLG and Dniester flint type TMB have a spiculitic character. Nevertheless, they differ in the abundance, size, and fragmentation degree of the sponge spicules and have different traits of the cortical-subcortical areas (Pls. VI/10–11 vs. VI/6–9). Dniester bioclastic-intraclastic chert (Molodova origin site) has a different microfacies and visual traits by comparison to the Dniester chert type GLG (Pl. VI/1) from Naslavcea area, which is very spiculitic (Pls. VI/4–5 vs. VI/2–3).

The presence at Oselivka and Molodova of siliceous materials similar to those from the Middle Prut and Middle

Dniester valleys suggests that the geological deposits from these two areas might extend to the N and NW. Oselivka is only 32 km NW from Va-Ca 03 (Botoşani County, Romania), more or less the point from which the chalk and eluvium with flint start to crop out on Prut Valley (see Annex A), while Molodova is 35 km WNW of Bir 05a (Naslavcea village, Ocniţa District, Republic of Moldova), the most western sampling location with Dniester chert in the MidDn research perimeter (see Annex B). However, the geological context from Oselivka and Molodova is only known from bibliography (see Annex C).

As already pointed out, the three sequences cannot be stratigraphically correlated, either based on geological information from literature, or based on direct field observations. Yes, the sequences with flint and chert exhibit some general traits such as colour and fabric. But no, attempting a stratigraphic correlation of the flint and chert types based on their colour and microscopic traits would be unwisely, as the microfossil content was not determined to species level and thus their geological age/stage cannot be accurately estimated.

The “grainy” materials from Molodova (Dniester bioclastic-intraclastic chert), Oselivka (Dniester detrital-rich spiculitic chert) and Naslavcea (Dniester chert types GDG and GLG) correspond to what has been called in the Romanian archaeological literature as Dniester flint (see above, Section 4 and Tab. 5). The black flint from chalk (Prut flint type B, Dniester flint types BFF and BF) is the most obvious link between Prut and Dniester valleys.

In short, the Upper Cretaceous flint and chert types occurring on the Middle Prut and Middle Dniester valleys have overlapping visual and microscopic traits. The careful microscopic investigations, correlated with stratigraphic observations, have shown that these can be petrographically differentiated into several categories and multiple subcategories. The Volhyno-Podolian flint is a whole different cookie.

6. P(R)UT FLINT IN PERSPECTIVE: WHAT COMES NEXT?

For the Prut flint and associates. The current characterisation and classification are limited by an unbalanced number of samples between the two research perimeters and partial or missing direct stratigraphic observations for the Middle Dniester Valley. The terminology of the types presented here (*i.e.*, Prut, Dniester, Volhyno-Podolian, B, BFF, etc.) is biased in many ways, but at least the petrographic content associated with them is clear.

The use of topographical-geographical terms, such as Prut, Dniester and Volhyno-Podolian, implies a given physiographically defined occurrence area, which in reality might not correspond with the occurrence area of the geological deposits containing the respective materials.

²⁴ The material called here similar to Prut flint type FB from Oselivka was recognised in an Upper Palaeolithic assemblage, while the geological data from the literature is not sufficient to establish if it has a natural occurrence in the Middle Dniester Valley and, hence, introduced to the site by the Palaeolithic inhabitants. It is also possible that this material was brought to the site from the Middle Prut Valley.

Rock categories and subcategories		MidPrut				MidDn				Origin sites			
		MA	MIA	Stm	Pol	MA	MIA	Stm	Pol	MA	MIA	Stm	Pol
Prut flint	Prut flint type M	8	3	4	3	0	0	0	0	0	0	0	0
	Prut flint type TLG	93	24	26	15	0	0	0	0	0	0	0	0
	Prut flint type TDG	35	9	10	6	0	0	0	0	0	0	0	0
	Prut flint type FB	51	15	18	6	0	0	0	0	0	0	0	0
	Prut flint type B	67	24	30	15	0	0	0	0	0	0	0	0
?	similar to Prut flint type FB	0	0	0	0	0	0	0	0	6	1	2	1
Dniester chert	Dniester detrital-rich spiculitic chert	0	0	0	0	0	0	0	0	10	1	1	1
	Dniester bioclastic-intraclastic chert	0	0	0	0	0	0	0	0	6	1	2	1
	Dniester chert type GLG	0	0	0	0	24	8	10	0	0	0	0	0
	Dniester chert type GDG	0	0	0	0	6	4	4	0	0	0	0	0
	Dniester flint type FFB	0	0	0	0	13	4	4	0	0	0	0	0
Dniester flint	Dniester flint type BF	0	0	0	0	2	2	3	0	0	0	0	0
	Dniester flint type TMIB	0	0	0	0	22	6	6	0	0	0	0	0
	Dniester flint type OMG	0	0	0	0	19	5	6	0	0	0	0	0
	Dniester flint type PSCN	0	0	0	0	11	5	5	0	0	0	0	0
	Dniester flint type BFF	0	0	0	0	28	5	5	0	0	0	0	0
Volhyno-Podolian flint	Dniester flint type TGB	0	0	0	0	2	2	2	0	0	0	0	0
	Volhyno-Podolian bioclastic flint	0	0	0	0	0	0	0	0	13	3	4	3
	Volhyno-Podolian pithonellid-bioclastic flint	0	0	0	0	0	0	0	0	9	1	2	1
	Volhyno-Podolian striped flint	0	0	0	0	0	0	0	0	2	0	0	0
		254	75	88	45	127	41	45	0	46	7	11	7
MA – number of samples in the macroscopic analysis; MIA – number of samples in the microscopic analysis; Stm – number of subsamples analysed with a stereomicroscope; Pol – number of subsamples (thin sections) analysed with a polarizing microscope.													

Table 6. Flint and chert types from geological deposits and origin sites in the study area.

Rock category and type	Occurrence area	Geological context	Microfacies	Grain-size	Sorting	Particles		Groundmass	Depositional setting
						%			
Prut flint	Prut flint type M	Middle Prut Valley, between Miorcani and Mitoc	phytoplanktonic-bioclastic wackestone	coarse silt	moderate-well	15–25	PhyPla, Bio, PlaFo, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
	Prut flint type TLG		spiculitic-phytoplanktonic wackestone	very fine to fine sand	moderate	15–25	SpoSpi+Bio, PhyPla, PlaFo, BenFo, rare Radio, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
	Prut flint type TDG		spiculitic-phytoplanktonic wackestone	very fine to fine sand	moderate	15–25	SpoSpi+Bio, PhyPla, PlaFo, BenFo, rare Radio, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
	Prut flint type FB		bioclastic-phytoplanktonic wackestone	very fine to fine sand	moderate-well	15–35	Bio, PhyPla, PlaFo, BenFo, rare Radio, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
	Prut flint type B		phytoplanktonic-bioclastic wackestone	coarse silt	moderate-well	15–25	PhyPla, PlaFo, BenFo, Bio, rare Radio, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
BenFo – benthic foraminifera; PlaFo – planktonic foraminifera; Pith – <i>Pithonella</i> ; SpoSpi – siliceous sponge spicules; Radio – radiolarians; Bio – mixed quantities of bioclasts recognisable as derived from echinoderms, algae, sponge spicules, mollusc and bivalve shells, or other biota; IntCla – intraclasts; PhyPla – phytoplanktonic organisms and/or remains (coccolithophores, dinoflagellates, planktonic cyanobacteria); Qd – detrital quartz clasts.									
Qcc – cryptocrystalline quartz (1-4 µm); Qm – microcrystalline quartz (4-20 µm).									

Table 7. Petrographic characteristics of the flint types defined for the MidPrut research perimeter.

Rock category and type	Occurrence area	Geological context	Microfacies	Grain-size	Sorting	Particles		Groundmass	Depositional setting
						%			
Dniester chert	Dniester chert type GLG	eluvium, (?)	detrital-rich spiculite packstone / packed wackestone	fine to medium sand	moderate	>60	SpoSpi, Bio, IntCla, PlaFo, PhyPla, Qd	interparticle siliceous cement and silicified matrix	Slope / Deep shelf
	Dniester chert type GDG	eluvium, (?)	detrital-rich spiculite packstone / packed wackestone	fine to medium sand	moderate	>60	SpoSpi, Bio, IntCla, PlaFo, PhyPla, Qd	interparticle siliceous cement and silicified matrix	Slope / Deep shelf
Dniester flint	Dniester flint type FFB	eluvium, (?)	spiculitic wackestone	very fine to fine sand	moderate	30–40	SpoSpi, Bio, PlaFo (3%), PhyPla	silicified matrix	Deep shelf
	Dniester flint type BF	chalk deposits, Lower Cenomanian	bioclastic wackestone	very fine sand	moderate	20–30	Bio, PhyPla, PlaFo, BenFo, rare Radio	silicified matrix	Deep shelf
	Dniester flint type TMB	eluvium, (?)	spiculitic-phytoplanktonic wackestone	fine sand	moderate	25–40	SpoSpi, PhyPla, Bio, PlaFo, BenFo	silicified matrix	Deep shelf
	Dniester flint type PSCN	eluvium, (?)	spiculitic-pithonellid wackestone	coarse silt to very fine sand	moderate-well	40–50	Pith, SpoSpi, PhyPla, PlaFo (5%), rare BenFo	silicified matrix	Deep shelf
	Dniester flint type OMG	eluvium, (?)	spiculitic-pithonellid wackestone	coarse silt to very fine sand	moderate-well	40–50	Pith, SpoSpi, PhyPla, PlaFo (5%), rare BenFo	silicified matrix	Deep shelf
	Dniester flint type BFF	chalk deposits, Lower Cenomanian	phytoplanktonic-bioclastic wackestone	coarse silt	moderate-well	20–30	PhyPla, Bio, PlaFo, BenFo, rare Radio	silicified matrix	Deep shelf

BenFo – benthic foraminifera; PlaFo – planktonic foraminifera; Pith – *Pithonella*; SpoSpi – siliceous sponge spicules; Radio – radiolarians; Bio – mixed quantities of bioclasts recognisable as derived from echinoderms, algae, sponge spicules, mollusc and bivalve shells, or other biota; IntCla – intraclasts; PhyPla – phytoplanktonic organisms and/or remains (coccolithophores, dinoflagellates, planktonic cyanobacteria); Qd – detrital quartz clasts.

Table 8. Petrographic characteristics of the flint and chert types defined for the MidDn research perimeter.

Rock category and type		Microfacies	Grain-size	Sorting	Particles		Groundmass	Depositional setting
					%			
Volhyno-Podolian flint	Volhyno-Podolian bioclastic flint	bioclastic wackestone	fine to medium sand	moderate	20–45	Bio, PlaFo, Pith, BenFo	silicified matrix	Deep shelf
	Volhyno-Podolian pithonellid-bioclastic flint	pithonellid-bioclastic packed wackestone	very fine sand	well	40–50	Pith, PlaFo, Bio, BenFo	silicified matrix	Deep shelf
?	similar to Prut flint type FB	bioclastic-phytoplanktonic wackestone	very fine to fine sand	moderate-well	15–35	Bio, PhyPla, PlaFo, BenFo, rare Radio, Qd, mica	silicified matrix (Qcc-Qm)	Deep shelf
Dniester chert	Dniester detrital-rich spiculitic chert	detrital-rich spiculitic-intraclastic packstone	medium sand	moderate-poor	>60	SpoSpi, Bio, IntCla, BenFo, Qd	interparticle siliceous cement and silicified matrix	Slope/Deep shelf
Dniester chert	Dniester bioclastic-intraclastic chert	bioclastic-intraclastic packed wackestone / packstone	fine sand	moderate-well	>60	Bio, IntCla, PlaFo, BenFo, Qd	interparticle siliceous cement and silicified matrix	Slope/Deep shelf
BenFo – benthic foraminifera; PlaFo – planktonic foraminifera; Pith – Pithonella; SpoSpi – siliceous sponge spicules; Radio – radiolarians; Bio – mixed quantities of bioclasts recognisable as derived from echinoderms, algae, sponge spicules, mollusc and bivalve shells, or other biota; IntCla – intraclasts; PhyPla – phytoplanktonic organisms and/or remains (coccolithophores, dinoflagellates, planktonic cyanobacteria); Qd – detrital quartz clasts.								

Table 9. Petrographic characteristics of the flint and chert types defined for the origin sites in the MidDn research perimeter.

The use of letters, which are acronyms for macroscopic traits (such as translucency, texture, and colour), instead of the defining microscopic traits (such as predominant particles, microfacies, etc.), has the advantage of being short enough and easy to retain, especially when contrasted with names derived from the microscopic content (e.g. Dniester bioclastic-intraclastic chert, which is a bit of a mouthful). The downside of this terminology comes from the abundance of types with acronyms that only change a letter and thus open the window for confusion.

If Prut flint and associates should be called something else, their names should be derived from: 1) the names of the geological formations in which they occur, but such names are not mentioned in the Romanian and Moldovan geological literature for the deposits with flint and chert from the Prut-Dniester area; 2) the name of the locality where their stratigraphic context can be observed best (similar to a type section for geological formations). By this last criterion, Prut flint should be named Cotu Miculinți flint, the Dniester chert and flint types should be named Naslavcea chert/flint and Cureșnița flint. Yet, naming chert or flint types in such a way would require using the same rules applied by geologists in designating geological formations, but the petroarchaeology in Romania is not ready for this. So, we have what we have, i.e. not enough information to make the change, and we go with it and sort things out as they come.

For those of you who consider the geological and petrographic data presented here to be archaeologically irrelevant or better suited to a geological journal. I have placed the geological and petrographic data in the annexes so that you do not need to go through or get bored while reading them. Besides, I don't get paid (now, even less) to be a geologist or to publish in geological journals. From the review of the archaeological and petroarchaeological literature regarding the Prut flint (see discussion above, Sections 2–4), it is clear that the geological and petrographic data presented here were extremely necessary in order to better understand what this geological material is and what is not in the archaeological record. Yes, this paper does not contain any bling-bling data on the provenience or amounts of Prut flint and associates in Palaeolithic or Neolithic sites from Romania. Does this make it archaeologically irrelevant? Or, maybe, there is something wrong with the way you understand archaeology?!

For those of you interested in knowing (or involved in) the provenience of archaeological lithic raw materials. Forget everything you know about Prut flint from previous research. Clean slate. Start from the information presented above (Section 5 and Annexes A–C). The petroarchaeological framework of Romania is growing and, as mentioned above (Section 4), the reality of the Prut flint as an archaeological raw material category has already changed and it's only a matter of time before corroborating new information sees the light of publication.

ACKNOWLEDGEMENTS

I am aware of the difficulty of finding good reviewers for any topic, but especially for one of an interdisciplinary nature, such as that of the article submitted to the attention of the MCA editorial team. I appreciate the effort and, especially, the time invested by the reviewers to read and scrutinise my article. I thank them for their observations and recommendations, which certainly contributed to the improvement of this paper. I would also like to thank the MCA editorial team for their effort in formatting those parts of the text that did not meet MCA requirements.

***This paper is accompanied by supplementary material, made available by the author, based on FAIR criteria. You can access the supplementary material in the dedicated section on the journal's website, within the Archive, under the *Supplementary Material* heading.

LIST OF SUPPLEMENTARY INFORMATION

Annex A. Flint and siliceous rock types from the Middle Prut Valley, Romania

Annex B. Flint and chert types from the Middle Dniester Valley, Republic of Moldova

Annex C. Flint and chert types from the Khotyn area (Chernivtsi Oblast), Ukraine

Appendix I. Methodological approach

REFERENCES

- Biagi 2015 – P. Biagi, *The Middle Neolithic and Chalcolithic Chipped Stone Assemblages of Transylvania: Their Exploitation, Manufacture and Trans-Carpathian Trade*, in: S. Hansen, P. Raczky, A. Anders, A. Reingruber (eds.), *Neolithic and Copper Age between the Carpathians and the Aegean Sea Chronologies and Technologies from the 6th to the 4th Millennium BCE*, International Workshop, Budapest 2012, Bonn, 2015, p. 243–262.
- Bitiri 1965a – M. Bitiri, *Cu privire la începuturile Paleoliticului superior în România*, SCIV 16(1), 1965, p. 5–16.
- Bitiri 1965b – M. Bitiri, *Considerații asupra prezenței unor forme de unelte bifaciale în așezările paleolitice din România*, SCIV 16(3), 1965, p. 431–449.
- Bitiri 1969 – M. Bitiri, *Gravetianul în nord-vestul României*, SCIV 20(4), 1969, p. 515–531.
- Bitiri 1972 – M. Bitiri, *Paleoliticul în Țara Oașului. Studiu arheologic*, BA, București, 1972.
- Bitiri 1981 – M. Bitiri, *Așezarea paleolitică de la Udești și specificul ei cultural*, SCIVA 32(3), 1981, p. 331–345.
- Bitiri, Cârțumaru 1978 – M. Bitiri, M. Cârțumaru, *Atelierul de la Mitoc – Valea Izvorului și locul lui în cronologia paleoliticului României*, SCIVA 29(4), 1978, p. 463–480.
- Boghian 1995 – D. Boghian, *Unele considerații asupra utilajului litic al complexului cultural Precucuteni-Cucuteni/Tripolie (I)*, Codrul Cosminului 1, 1995, p. 7–41.
- Boghian 2008 – D. D. Boghian, *Di alcune fonti di materia prima per l'utensileria litica delle comunità del complesso culturale Precucuteni-Cucuteni*, in: N. Ursulescu, R. Kogălniceanu, C. Crețu (eds.), *Cucuteni. Tesori di una civiltà preistorica dei Carpazi, Atti del Convegno italo-romeno, Roma 18 ottobre 2007*, Iași–Roma, 2008, p. 39–70.
- Boghian 2009 – D. D. Boghian, *Din nou despre unele surse de materie primă pentru confecționarea utilajului litic al comunităților complexului cultural Precucuteni-Cucuteni*, Suceava 24–26, 2009, p. 117–146.
- Brudiu 1969 – M. Brudiu, *Două descoperiri paleolitice în județul Galați*, Danubius 2–3, 1969, p. 7–10.
- Brudiu 1970 – M. Brudiu, *Așezările paleolitice gravettiene de la Puricani și Pleșa, județul Galați*, Danubius 4, 1970, p. 3–9.
- Brudiu 1971 – M. Brudiu, *Primele descoperiri tardenoisene din sud-estul Moldovei*, SCIV 22(3), 1971, p. 361–375.
- Brudiu, Păpușoi 1971 – M. Brudiu, E. Păpușoi, *Cercetări paleolitice la Mălușteni (jud. Vaslui)*, Carpica 4, 1971, p. 21–29.

- Chirica 1975 – V. Chirica, *Descoperiri paleolitice din aşezarea de la Mitoc (jud. Botoşani)*, ArhMold 8, 1975, p. 7–14.
- Chirica, Tănăsache 1981 – V. Chirica, M. Tănăsache, *Cercetări arheologice în aşezarea de la Dolhasca (judeţul Suceava) şi unele consideraţii privind gravetianul de pe teritoriul României*, MemAnt 6–8 (1974–1976), 1981, p. 267–278.
- Ciornei 2015 – Al. Ciornei, *Petrographic analysis of raw materials from Lespezi-Lutărie: implications for Upper Palaeolithic sites from the Middle and Lower Bistriţa Valley*, MCA 11, 2015, p. 43–79.
- Ciornei 2023 – Al. Ciornei, *An enduring classification of the raw materials from the Upper Palaeolithic and Epipalaeolithic sites in the Middle and Lower Bistriţa Valley (Northeastern Romania): overview and reassessment*, ArhMold 45 (2022), 2023, p. 27–58.
- Ciornei, Mariş 2020 – Al. Ciornei, I. Mariş, *From the Lower Danube to the Middle Prut and across the Carpathians: long-distance raw material transfers during the Upper Palaeolithic*, Marmăţia 15 (2018), 2020, p. 41–67.
- Ciornei et alii 2022 – Al. Ciornei, I. Mariş, M. Anghelinu, L. Niţă, *The Upper Palaeolithic site of Bistricioara-Lutărie III (Ceahlău Basin, Northeastern Romania): raw materials and possible supply sources*, SP 18 (2021), 2022, p. 7–68.
- Comşa 1968 – E. Comşa, *Über die Verbreitung und Herkunft einiger von den jungsteinzeitlichen Menschen auf dem Gebiete Rumäniens verwendeten Werkstoffe*, A Móra Ferenc Múzeums Evkönyve 2 (1966–1967), 1968, p. 25–33.
- Comşa 1975 – E. Comşa, *Quelques données sur le silex „de Prut”*, Folia Facultatis scientiarum naturalium Universitatis Purkynianae Brunensis, Geologia 27, 1975, p. 109–115.
- Comşa 1976 – E. Comşa, *Les matières premières en usage chez les hommes néolithiques de l'actuel territoire roumain*, AAC 16, 1976, p. 239–249.
- Comşa 1986 – E. Comşa, *Săpăturile de salvare de pe „Măgura Cuneştilor”*, MCA 16 (1982), 1986, p. 53–57.
- Comşa 1991 – E. Comşa, *Aşezarea de tip Criş de la Valea Lupului*, ArhMold 14, 1991, p. 5–35.
- Crandell 2008 – O. N. Crandell, *Regarding the procurement of lithic materials at the Neolithic site at Limba (Alba county, Romania): sources of local and imported materials*, in: R. I. Kostov, B. Gaydarska, M. Gurova (eds.), *Geoarchaeology and Archaeomineralogy, Proceedings of the International Conference, 29–30 October 2008, Sofia*, Sofia, 2008, p. 36–45.
- Crandell 2012a – O. N. Crandell, *Petrographic Evidence of Intercultural Trade During the Chalcolithic; Examples from Neamţ County, Romania*, in: V. Diaconu (ed.), *Depresiunea Neamţ. Contribuţii arheologice*, Piatra-Neamţ, 2012, p. 147–158.
- Crandell 2012b – O. N. Crandell, *Lithic sources available to prehistoric populations in the Banat region, Romania*, in: V. Cotiugă, Şt. Caliniuc (eds.), *Interdisciplinarity Research in Archaeology. Proceedings of the First Arheoinvest Congress, 10–11 June 2011, Iaşi*, BARInterSer 2433, Oxford, 2012, p. 69–79.
- Crandell 2013 – O. N. Crandell, *The Provenance of Neolithic and Chalcolithic Stone Tools from Sites in Teleorman County, Romania*, BMJT 5, 2013, p. 125–142.
- Crandell 2016 – O. N. Crandell, *An overview of the knapped stone economy at the Tărtăria site (Transylvanian Basin, Romania)*, Journal of Lithic Studies 3(2), 2016, p. 181–207.
- Crandell, Vornicu 2015 – O. N. Crandell, D.-M. Vornicu, *Aspects of Long Distance Trade by the Precucuteni Culture*, Transylvanian Review 24(2), 2015, p. 85–108.
- Crandell et alii 2013 – O. N. Crandell, L. Niţă, M. Anghelinu, *Long-Distance imported lithic raw materials at the Upper Palaeolithic sites of the Bistriţa Valley (Carpathian Mts.), Eastern Romania*, Lithics 34, 2013, p. 30–42.
- Cucoş, Muraru 1985 – Şt. Cucuş, A. Muraru, *Studiu tipologic şi petrografic al uneltelor litice din câteva aşezări Cucuteni B*, MemAnt 9–11 (1977–1979), 1985, p. 605–642.
- Dobosi 2009 – V. Dobosi, *Filling the Void: Lithic Raw Material Utilization During the Hungarian Gravettian*, in: B. Adams, B. Blades (eds.), *Lithic materials and Paleolithic societies*, Oxford, 2009, p. 116–126.
- Dobosi, Kövecses-Varga 1991 – V. T. Dobosi, E. Kövecses-Varga, *Upper Palaeolithic Site at Esztergom-Gyurgyalag. An archaeological analysis*, ActaArchHung 43(3–4), 1991, p. 233–255.
- Dragomir 1983 – I. T. Dragomir, *Săpăturile arheologice din aşezarea cucuteniană de la „Dealul Bulgarului” (jud. Galaţi)*, MCA 15 (1981), 1983, p. 70–81.
- Faragó 2017 – N. Faragó, *Differences in the selection of raw materials at the site of Polgár-Csőszhalom, northeast Hungary*, Be-Ja 7, 2017, p. 85–115.
- Frînculeasa, Niţă 2006–2007 – A. Frînculeasa, L. Niţă, *Le matériel lithique taillé de l'établissement énéolithique de Mălăieştii de Jos, département de Prahova. Quelques données préliminaires sur les découvertes des campagnes 2002–2005*, AnUVT 8–9, 2006–2007, p. 132–141.
- Furestier, Mihail 2011 – R. Furestier, F. Mihail, *L'industrie lithique taillée de Taraschina*, in: L. Carozza, C. Bem, C. Micu (eds.), *Société et environnement dans la zone du Bas Danube durant le 5ème millénaire avant notre ère*, Iaşi, 2011, p. 365–383.
- Furestier, Mihail 2022 – R. Furestier, F. Mihail, *Les industries lithiques taillées de la zone 2 de Taraschina*, in: L. Carozza, C. Micu (eds.), *Au-delà de la nature : le bas Danube et son delta durant les huit derniers millénaires*, Cluj-Napoca, 2022, p. 377–403.
- Furestier et alii 2017 – R. Furestier, F. Mihail, L. Manolakis, S. Philibert, L. Carozza, C. Micu, *Les industries lithiques énéolithiques de la Dobroudja du Nord*, MCA 13, 2017, p. 213–226.
- Lengyel 2011 – G. Lengyel, *The pebble, the block and the tabular. Lithic raw material use at Ságvár Lyukas-domb Upper Palaeolithic site*, in: K. T. Biró, A. Markó (eds.), *Emlékkönyv Violának. Tanulmányok T. Dobosi Viola tiszteletére. Papers in Honour of Viola T. Dobosi*, Magyar Nemzeti Múzeum, Budapest, 2011, p. 93–102.
- Lengyel 2015 – G. Lengyel, *Lithic raw material procurement at Bodrogkeresztúr-Henye Gravettian site, northeast Hungary*, Quaternary International 359–360, 2015, p. 292–303.
- Lengyel 2018 – G. Lengyel, *Lithic analysis of the Middle and Late Upper Palaeolithic in Hungary*, Folia Quaternaria 86, 2018, p. 5–157.
- Marinescu-Bîlcu et alii 1981 – S. Marinescu-Bîlcu, M. Cârciumaru, A. Muraru, *Contributions to the ecology of Pre- and Protohistoric habitations at Tîrpeşti*, Dacia NS 25, 1981, p. 7–31.
- Marinescu-Bîlcu et alii 1984 – S. Marinescu-Bîlcu, Al. Bolomey, M. Cârciumaru, A. Muraru, *Ecological, economic and behavioural aspects of the Cucuteni A4 community at Drăguşeni*, Dacia NS 28(1–2), 1984, p. 41–46.
- Marinescu-Bîlcu et alii 1985 – S. Marinescu-Bîlcu, M. Cârciumaru, A. Muraru, *Contribuţii la ecologia locurilor pre- şi protoistorice de la Tîrpeşti*, MemAnt 9–11 (1977–1979), 1985, p. 643–684.
- Moroşan 1938 – N. N. Moroşan, *Le Pléistocène et le Paléolithique de la Roumanie du Nord-Est*, AIGR 19, Bucureşti, 1938.
- Muraru 1990 – A. Muraru, *Le gisement de silex de la Vallée du Prut, source de matière première pour l'outillage lithique dans la préhistoire*, in: M.-R. Seronie-Vivien, M. Lenoir (eds.), *Le silex de sa genèse à l'outil. Actes du V^e colloque international sur le silex (V^e International Flint Symposium)*, Bordeaux, 17 sept.–2 oct. 1987, Cahiers du Quaternaire 17, CNRS, Bordeaux, 1990, p. 149–159.
- Muraru 2000 – A. Muraru, *A petrographic survey of the lithic material*, in: S. Marinescu-Bîlcu, Al. Bolomey, *Drăguşeni. A Cucutenian community*, Bucureşti–Tübingen, 2000, p. 59–62.
- Nicolăescu-Plopşor, Petrescu-Dîmboviţa 1959 – C. S. Nicolăescu-Plopşor, M. Petrescu-Dîmboviţa, *Principalele rezultate ale cercetărilor arheologice de la Bicaz*, MCA 5, 1959, p. 45–60.
- Nicolăescu-Plopşor, Zaharia 1959 – C. S. Nicolăescu-Plopşor, N. N. Zaharia, *Cercetările de la Mitoc (r. Săveni, reg. Suceava)*, MCA 6, 1959, p. 11–23.
- Nicolăescu-Plopşor et alii 1959 – C. S. Nicolăescu-Plopşor, Al. Păunescu, Al. Paul-Bolomey, I. Pop, N. N. Zaharia, *Raport preliminar asupra cercetărilor paleolitice din anul 1956*, MCA 5, 1959, p. 15–43.
- Nicolăescu-Plopşor et alii 1961a – C. S. Nicolăescu-Plopşor, Al. Păunescu, F. Mogoşanu, M. Bitiri, A. Paul-Bolomey, D. Teodoru, S. Teodoru,

- M. Florescu, N. Berlescu, *Şantierul arheologic Bicaz*, MCA 7, 1961, p. 37–47.
- Nicolăescu-Plopşor et alii 1961b – C. S. Nicolăescu-Plopşor, C. Buzdugan, V. Căpitanu, V. Ursache, Al. Paul-Bolomey, *Cercetările şi săpăturile arheologice de la Buda*, MCA 7, 1961, p. 21–28.
- Nicolăescu-Plopşor et alii 1966 – C. S. Nicolăescu-Plopşor, Al. Păunescu, F. Mogoşanu, *Le Paléolithique de Ceahlău*, Dacia NS 10, 1966, p. 5–116.
- Niţă, Ştefan 2011 – L. Niţă, C. E. Ştefan, *Consideraţii privind materialul litic din aşezarea de la Cuneşti-„Măgura Cuneştilor” (jud. Călăraşi)*, SCIVA 62(3–4), 2011, p. 195–207.
- Păunescu 1964 – Al. Păunescu, *Cu privire la perioada de sfârşit a Epipaleoliticului în Nord-Vestul şi Nord-Estul României şi unele persistenţe ale lui în Neoliticul vechi*, SCIV 15(3), 1964, p. 321–336.
- Păunescu 1965 – Al. Păunescu, *Sur la succession des habitats paléolithiques et postpaléolithiques de Ripiceni-Izvor*, Dacia NS 9, 1965, p. 5–32.
- Păunescu 1966 – Al. Păunescu, *Cercetări paleolitice*, SCIV 17(2), 1966, p. 319–333.
- Păunescu 1970a – Al. Păunescu, *Evoluţia uneltelor şi armelor de piatră cioplită descoperite pe teritoriul României*, Bucureşti, 1970.
- Păunescu 1970b – Al. Păunescu, *Locuiri gravetiene de la Valea Seacă (jud. Iaşi) şi unele consideraţii asupra gravetianului oriental final din Moldova*, SCIV 21(4), 1970, p. 539–550.
- Păunescu 1993 – Al. Păunescu, *Ripiceni-Izvor. Paleolitic şi mezolitic. Studiu Monografic*, Bucureşti, 1993.
- Păunescu 1998 – Al. Păunescu, *Paleoliticul şi epipaleoliticul de pe teritoriul Moldovei cuprins între Carpaţi şi Siret*, I/1, Bucureşti, 1998.
- Păunescu 1999 – Al. Păunescu, *Paleoliticul şi mezoliticul de pe teritoriul Moldovei cuprins între Siret şi Prut*, vol. I/2, Bucureşti, 1999.
- Spinei 1970 – V. Spinei, *Einige Betrachtungen über äneolithische Feuersteinbeile in der Moldau*, Dacia NS 14, 1970, p. 25–50.
- Spinei 1971 – V. Spinei, *Descoperiri de topoare din silex în Moldova*, MemAnt 3, 1971, p. 79–141.
- Starnini et alii 2015 – E. Starnini, G. Szakmány, S. Józsa, Zs. Kasztovszky, V. Szilágyi, B. Maróti, B. Voytek, F. Horváth, *Lithics from the tell site Hódmezővásárhely-Gorzsa (southeast Hungary): typology, technology, use and raw material strategies during the Late Neolithic (Tisza Culture)*, in: S. Hansen, P. Raczky, A. Anders, A. Reingruber (eds.), *Neolithic and Copper Age between the Carpathians and the Aegean Sea Chronologies and Technologies from the 6th to the 4th Millennium BCE, International Workshop, Budapest 2012*, Bonn, 2015, p. 105–128.
- Stepanchuk, Petrougne 2005 – V. N. Stepanchuk, V. F. Petrougne, *Raw materials as a source for tracing migration: the case of UP assemblages from Mira in Middle Dnieper area*, ArchMűh 4, 2005, p. 38–45.
- Țurcanu 2009 – S. Țurcanu, *Industria litică cioplită din Neoliticul Moldovei*, BAI 21, Iaşi, 2009.
- Varga 1991 – I. Varga, *Mineralogical analysis of the lithic material from the Paleolithic site of Esztergom-Gyurgyalag*, ActaArchHung 43(3–4), 1991, p. 267–269.
- Văleanu 2003 – M.-C. Văleanu, *Omul şi mediul natural în neo-eneoliticul din Moldova*, Iaşi, 2003.
- Văleanu 2015a – M.-C. Văleanu, *The occurrence of flint in north-eastern Romania in the context of local prehistoric habitations*, AnUVT 17(1), 2015, p. 7–50.
- Văleanu 2015b – M.-C. Văleanu, *Ocurenţa silexului în Nord-Estul României în contextul locuirilor preistorice din zonă*, Cerclst SN 24, 2015, p. 37–107.
- Vornicu 2017 – D.-M. Vornicu, *The chipped stone assemblage from the Early Chalcolithic settlement at Isaiia – Balta Popii*, MCA 13, 2017, p. 191–211.

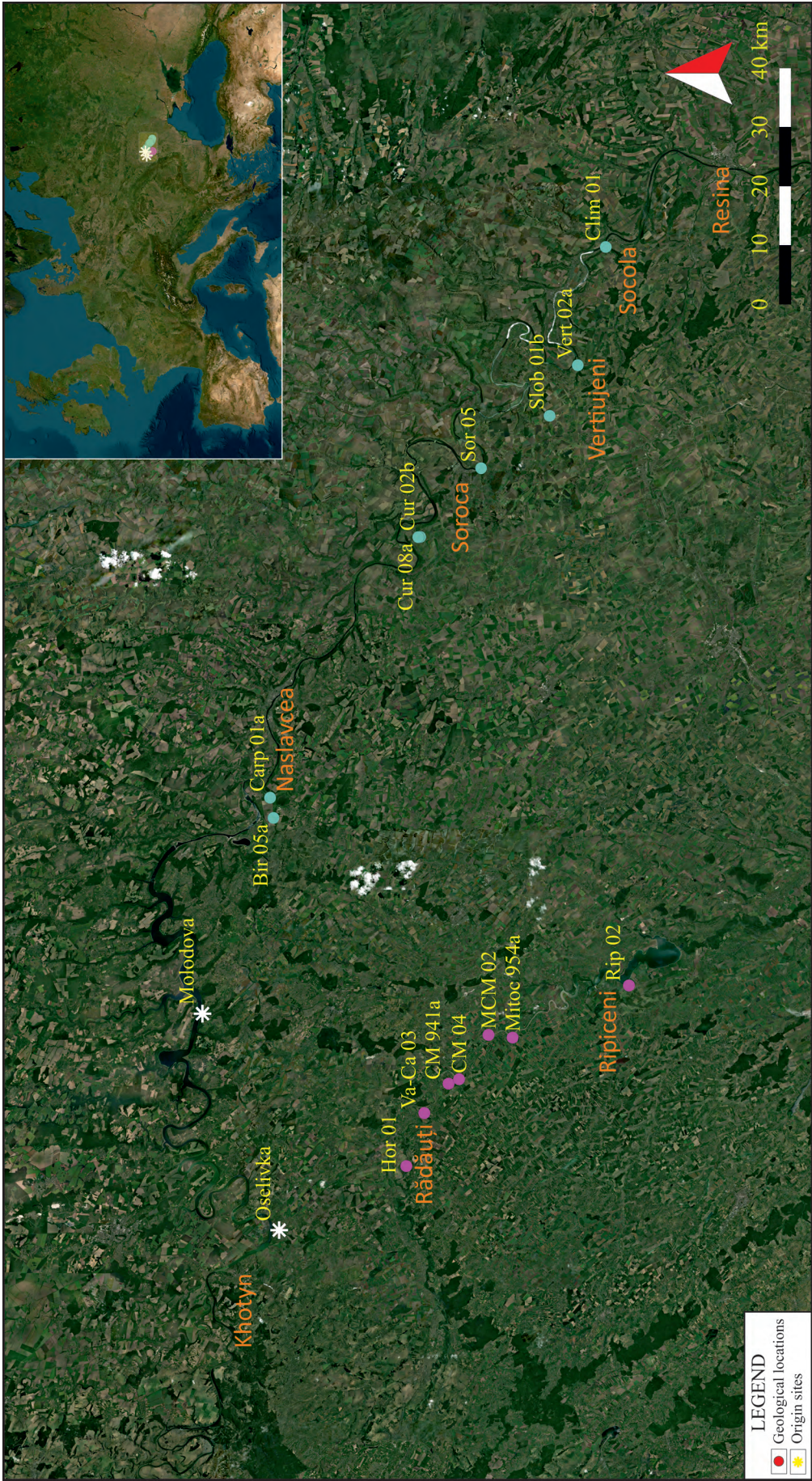


Plate 1. Distribution map of geological locations from the MidPrut (Romania) and MidDn (Republic of Moldova) research perimeters and origin sites from the MidDn research perimeter (western Ukraine). Map created in QGIS (projection is latitude-longitude WGS-84).

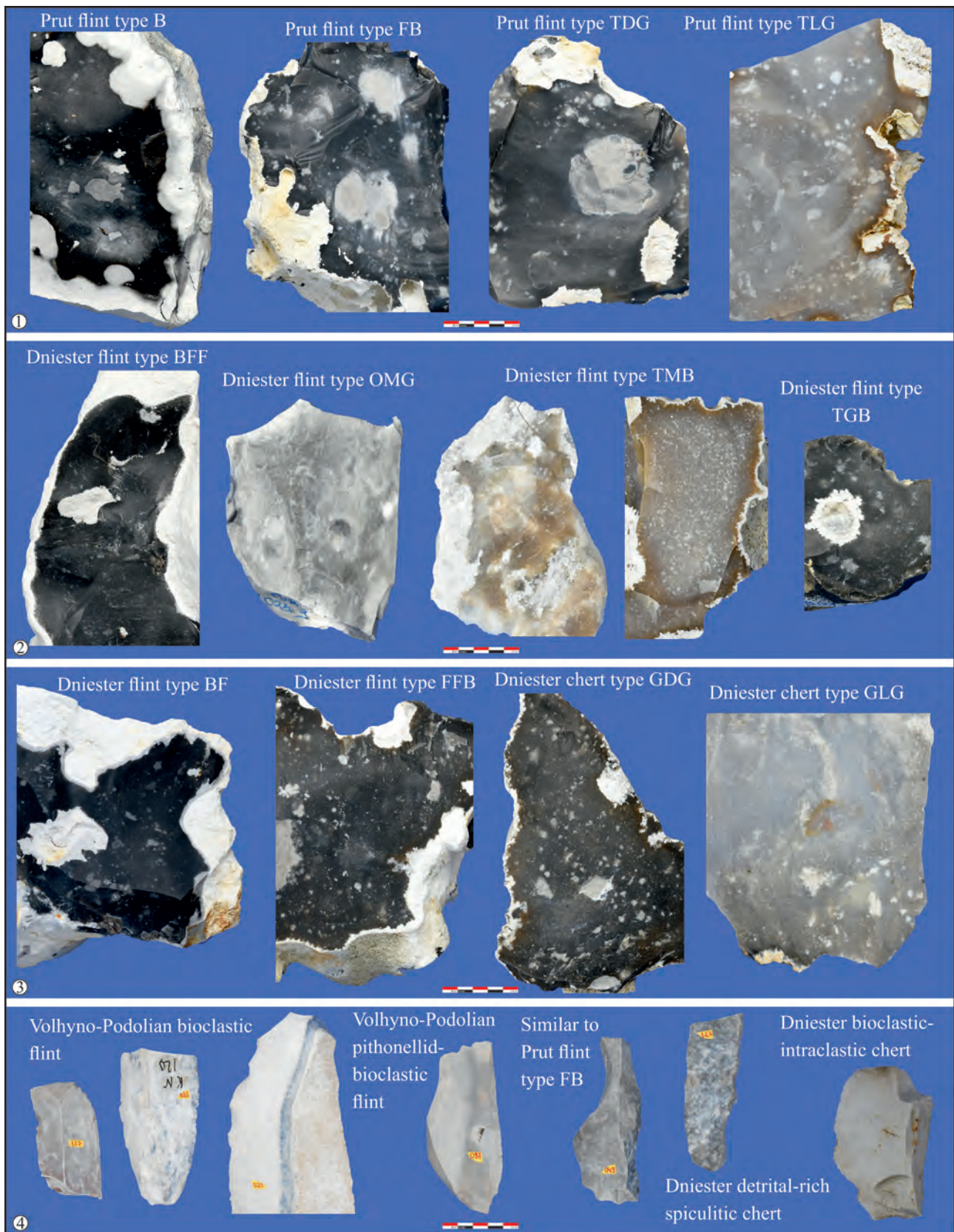


Plate II. Macroscopic views of samples from geological deposits (1–3) and origin sites (4) in the study area: **1.** Cretaceous flint from the Middle Prut Valley; **2–4.** Cretaceous flint and chert from the Middle Dniester Valley; all scale bars are 2.5 cm long (photographs by Al. Ciornei 2018, 2024–2025).

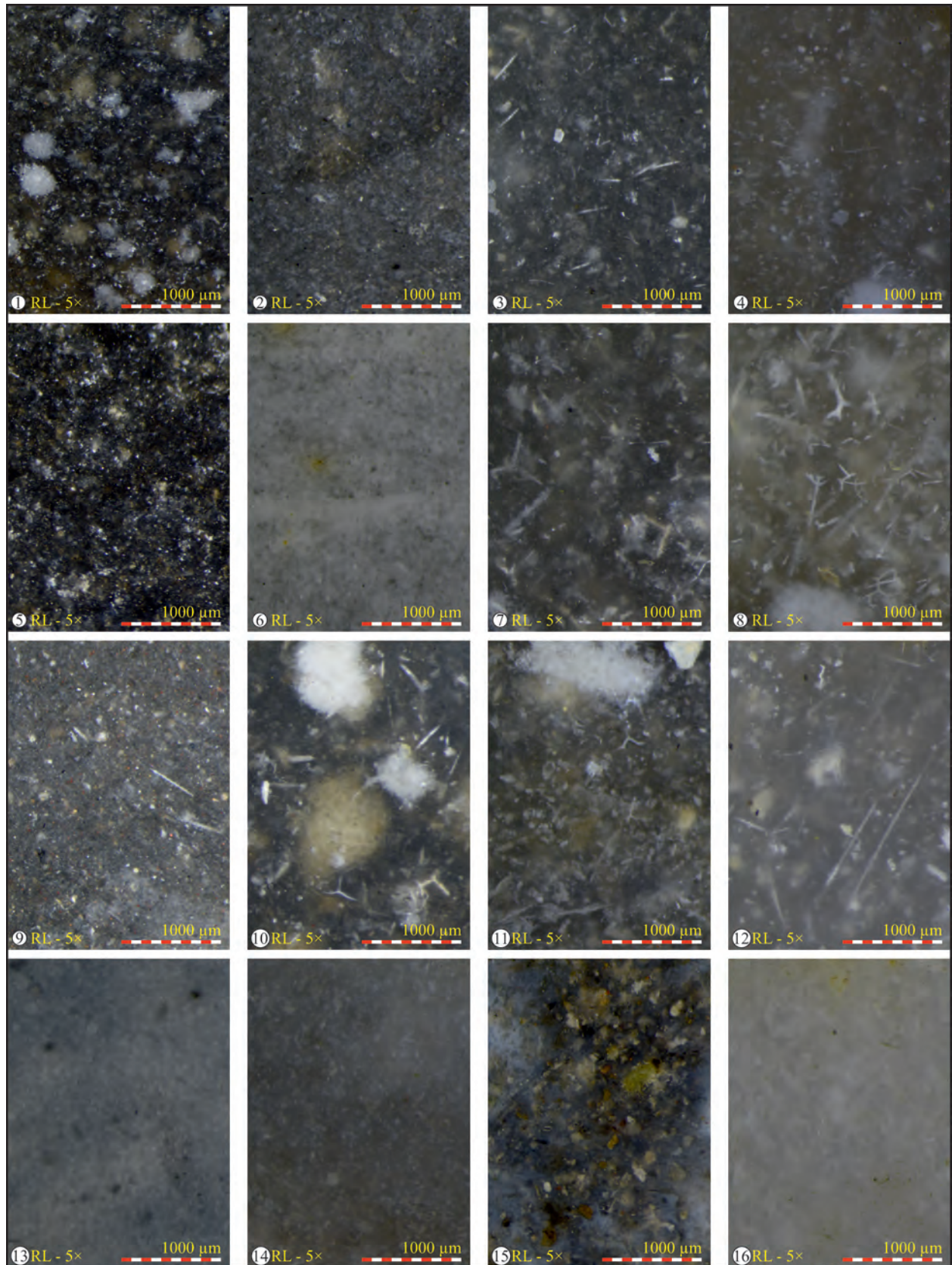


Plate III. Microscopic views of samples from geological deposits (1–12) and origin sites (13–16) in the study area: **1.** Prut flint type B; **2.** Prut flint type FB; **3.** Prut flint type TDG; **4.** Prut flint type TLG; **5.** Dniester flint type BFF; **6.** Dniester flint type OMG; **7.** Dniester flint type TGB; **8.** Dniester flint type TMB; **9.** Dniester flint type BF; **10.** Dniester flint type FFB; **11.** Dniester chert type GDG; **12.** Dniester chert type GLG; **13.** Volhyno-Podolian bioclastic flint; **14.** Volhyno-Podolian pithonellid-bioclastic flint; **15.** Dniester detrital-rich spiculitic chert; **16.** Dniester bioclastic-intraclastic chert; RL - reflected light (photographs by Al. Ciornei 2024–2025).

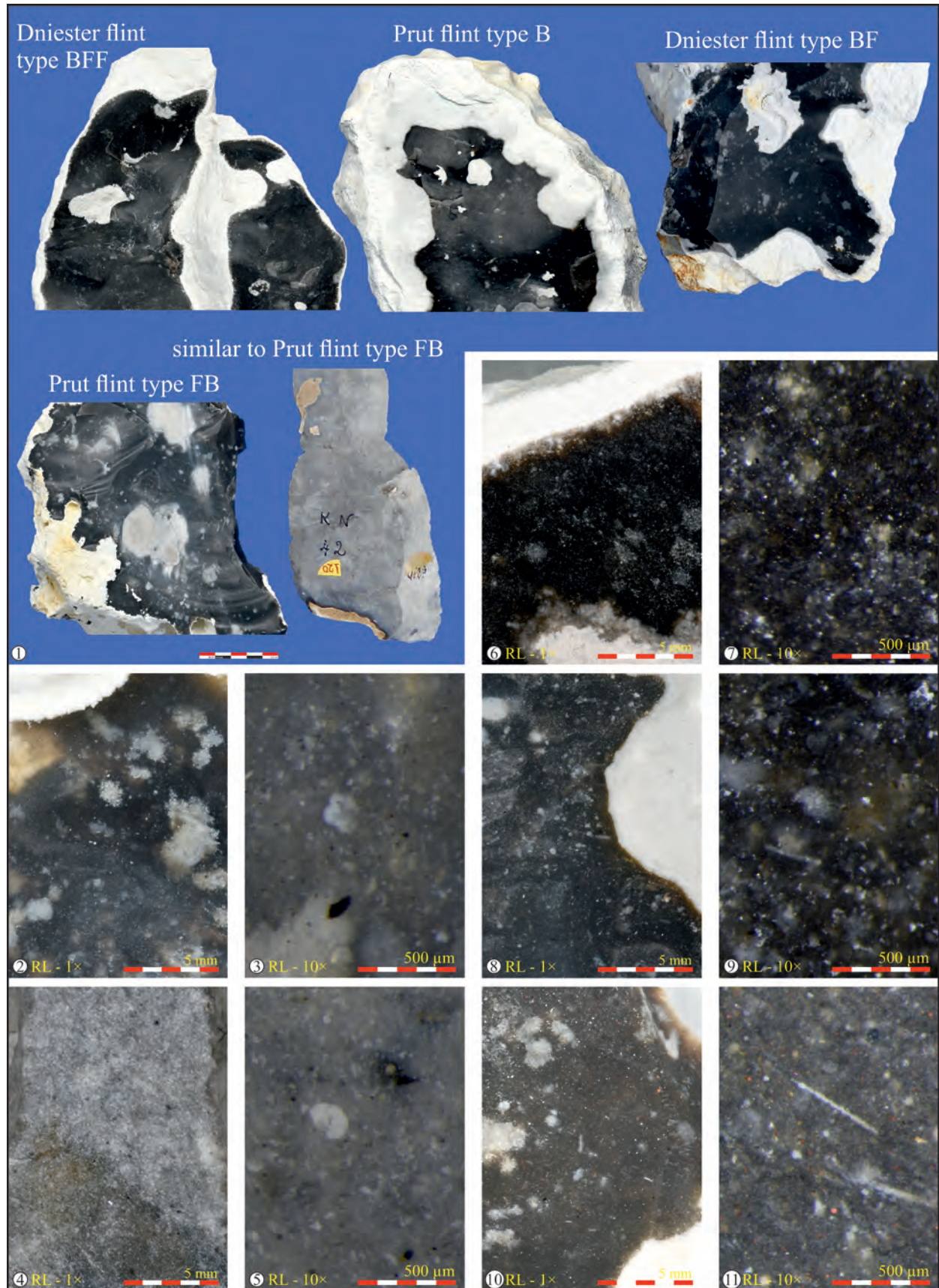


Plate IV. Black flint types from the study area: **1.** Macroscopic views (scale bar is 2.5 cm long); **2–3.** Prut flint type FB; **4–5.** Similar to Prut flint type FB; **6–7.** Dniester flint type BFF; **8–9.** Prut flint type B; **10–11.** Dniester flint type BF; **2–11** - photomicrographs of water immersed samples; RL - reflected light (photographs by Al. Ciornei 2024–2025).

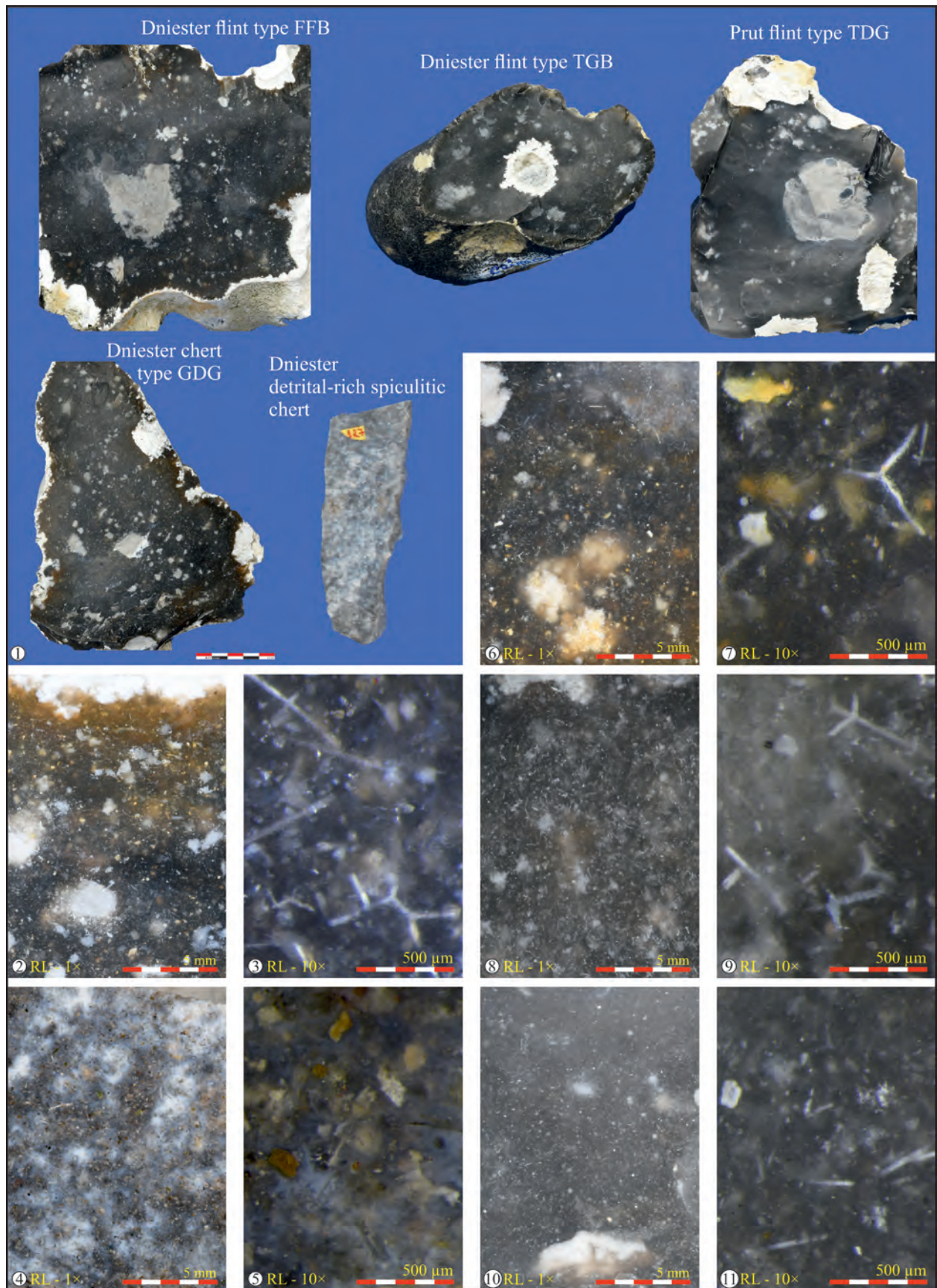


Plate V. Dark grey flint and chert types from the study area: **1.** Macroscopic views (scale bar is 2.5 cm long); **2–3.** Dniester chert type GDG; **4–5.** Dniester detrital-rich spiculitic chert; **6–7.** Dniester flint type FFB; **8–9.** Dniester flint type TGB; **10–11.** Prut flint type TDG; **2–11** - photomicrographs of water immersed samples; RL - reflected light (photographs by Al. Ciornei 2024–2025).

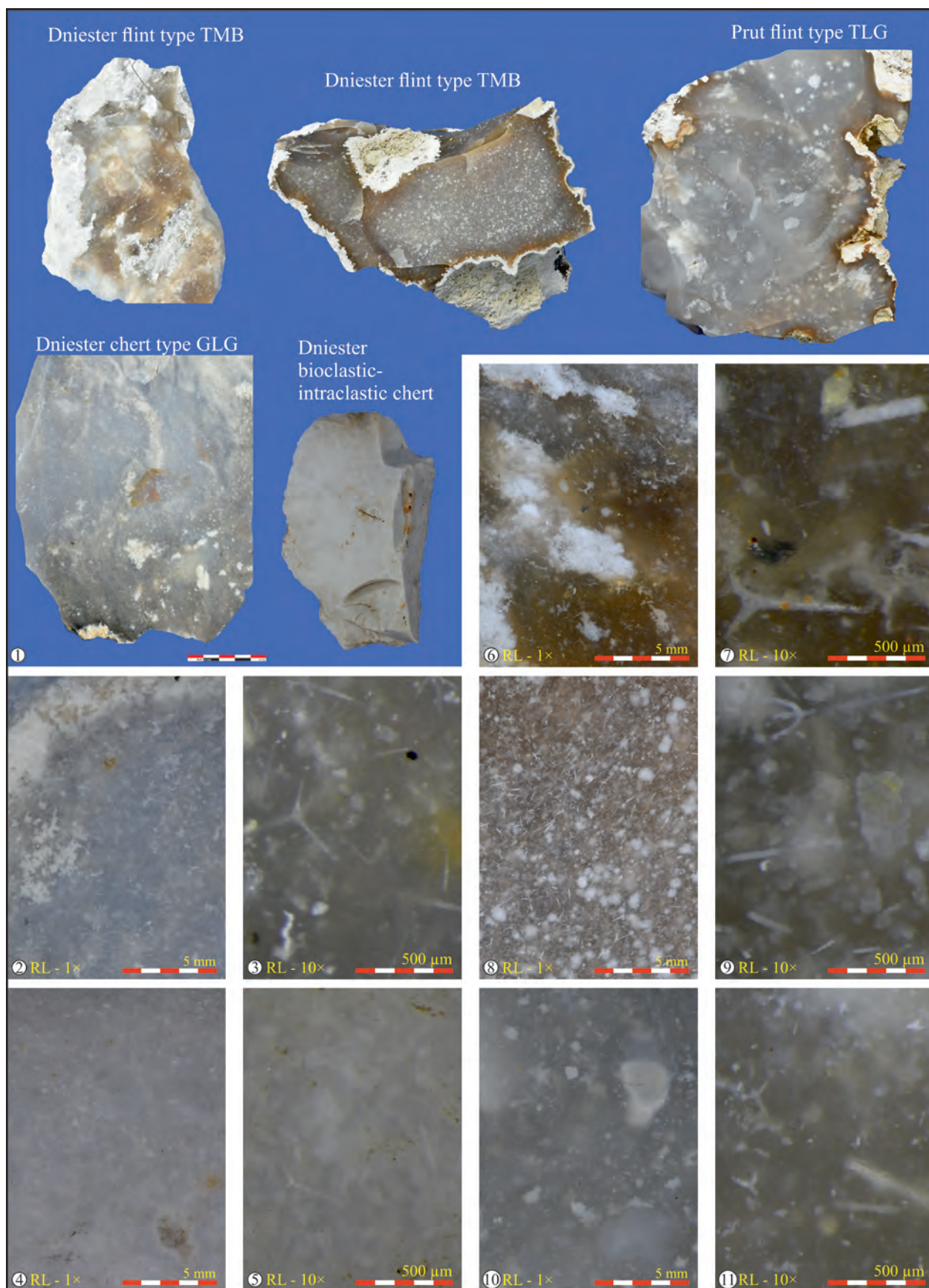


Plate VI. Medium-light grey flint and chert types from the study area: **1.** Macroscopic views (scale bar is 2.5 cm long); **2–3.** Dniester chert type GLG; **4–5.** Dniester bioclastic-intraclastic chert; **6–7.** Dniester flint type TMB; **8–9.** Dniester flint type TMB; **10–11.** Prut flint type TLG; 2–11 - photomicrographs of water immersed samples; RL - reflected light (photographs by Al. Ciornei 2024–2025).

ABREVIERI / ABRÉVIATIONS / ABBREVIATIONS

- AAC – Acta Archaeologica Carpatica, Kraków
ACMI – Anuarul Comisiunii Monumentelor Istorice, București
ActaArchHung – Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest
Acta Classica Univ. Scient. Debrecen – Acta Classica Universitatis Scientiarum Debreceniensis, Debrecen, Ungaria
ActaMN – Acta Musei Napocensis, Cluj
ActaMP – Acta Musei Porolissensis, Zalău
ActaPraehistA – Acta praehistorica et archaeologica
AIGR – Anuarul Institutului Geologic al României, București
AIIAC – Anuarul Institutului de Istorie „George Barițiu”, Cluj
AJA – American Journal of Archaeology, Boston
AJPA – American Journal of Physical Anthropology
Alba Regia – Alba Regia. Annales Musei Stephani regis, Székesfehérvár
Anatolia Antiqua – Anatolia Antiqua. Revue internationale d'archéologie anatolienne. Institut Français d'Etudes anatoliennes d'Istanbul
Anatolica – Anatolica. The Netherlands Institute for the Near East in Leiden
AnB – Analele Banatului, Muzeul Banatului, Timișoara
AncNearEastSt – Ancient Near Eastern Studies, Leuven, Belgia
Angustia – Angustia. Arheologie, Etnografie, Sfântu Gheorghe
Anmed – Anmed. Anadolu Akdenizi Arkeoloji Haberleri, Antalya, Turcia
AnSt – Anatolian Studies. British Institute of Ankara
AnUCraiova – Analele Universității din Craiova, Craiova (seria Istorie)
AnUVT – Annales d'Université “Valahia” Târgoviște, Section d'Archéologie et d'Histoire
Apulum – Acta Musei Apulensis. Muzeul Național al Unirii, Alba Iulia
ArchBulg – Archaeologia Bulgarica, Sofia
ArchÉrt – Archaeológiai Értesítő, Budapest
ArchHung – Archaeologia Hungarica, Acta Archaeologica Musei Nationalis Hungarici, Budapest
ArchKorr – Archäologisches Korrespondenzblatt, Mainz
ArchMűh – Archeometriai Műhely
ArchRozhledy – Archeologické Rozhledy, Praha
Argesis – Argesis. Muzeul Județean Argeș. Pitești
Arheologia Medievală. Complexul Muzeal Bistrița-Năsăud, Bistrița
ArheologijaSSSR – Arheologija SSSR. Svod Archeologičeskikh Istočnikov, Moscova
Arheološki vestnik – The Research Center of the Slovenian Academy of Sciences and Arts
ArhMold – Arheologia Moldovei, Iași
AS – Archeologica Slovaca, Bratislava
AST – Eski Eserler ve Müzeler Genel Müdürlüğü, I. Araştırma Sonuçları Toplantısı, Istanbul / General Directorate of Ancient Monuments and Museums
AȘUI – Analele științifice ale Universității Alexandru Ioan Cuza, Iași
BA – Biblioteca de Arheologie, București
BaBesch – Bulletin antieke beschaving. Annual Papers on Classical Archaeology
BAI – Bibliotheca Archaeologica lassiensis, Iași
Baltic-Pontic Studies – Adam Mickiewicz University, Poznań, Institute of Archaeology, Institute of Eastern Studies, Poland
Banatica – Banatica. Muzeul Banatului Montan, Reșița
BarBrSer – British Archaeological Reports. British Series, Oxford
BARIntSer – British Archaeological Reports. International Series, Oxford
BCMI – Buletinul Comisiunii Monumentelor Istorice
Be-Ja – Bulgarian e-Journal of Archaeology
BerRGK – Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt am Main
BIAA Monograph – British Institute of Archaeology at Ankara
BiblEphemNap – Bibliotheca Ephemeris Napocensis, Cluj-Napoca
BiblMemAnt – Bibliotheca Memoriae Antiquitatis, Piatra-Neamț
BiblThrac – Bibliotheca Thracologica, București

- BMC – *Coins of the Roman Empire in the British Museum*, Londra; II, *Vespasian to Domitian*, 1930; IV, *Antoninus Pius to Commodus*, 1968; V, *Pertinax to Elagabalus*, 1950 (H. Mattingly)
- BMI – Buletinul Monumentelor Istorice, București
- BMJT – Buletinul Muzeului Județean Teleorman, Alexandria
- BMTAG – Buletinul Muzeului Județean „Teohari Antonescu”, Giurgiu
- BSA – British School at Athens, Athens
- BSNR – Buletinul Societății Numismatice Române, București
- BSPF – Bulletin de la Société Préhistorique Française, Paris
- BSSC – Buletinul Societății de Științe din Cluj
- București-MIM – București. Materiale de Istorie și Muzeografie. Muzeul Municipiului București
- BYZAS – German Archaeological Institute of Istanbul
- CA – Cercetări Arheologice. Muzeul Național de Istorie a României, București
- CAB – Cercetări arheologice în București. Muzeul Municipiului București
- Caiete ARA – Caietele ARA, Revistă de Arhitectură. Restaurare și Arheologie, Asociația ARA, București
- Carpica – Carpica. Complexul Muzeal „Iulian Antonescu” Bacău, Bacău
- CCA – Cronica Cercetărilor Arheologice din România, București
- CCDJ – Cultură și Civilizație la Dunărea de Jos, Călărași
- Cerclst – Cercetări Istorice, Muzeul de Istorie a Moldovei, Iași
- CN – Cercetări numismatice, București
- CollAn – Colloquium Anatolicum. Anadolu Sohbetleri, Institutum Turcicum Scientiae Antiquitatis, Istanbul
- Crisia – Crisia. Muzeul Țării Crișurilor, Oradea
- Cuadernos del Museo Geominero – Museo Geominero, Instituto Geológico y Minero de España, Madrid
- Current Anthropology – Current Anthropology. University of California, Merced
- Dacia – Dacia (Nouvelle Série). Revue d'archéologie et d'histoire ancienne. Académie Roumaine. Institut d'archéologie « V. Pârvan », Bucarest
- Danubius – Danubius, Revista Muzeului de Istorie Galați
- Documenta Praehistorica – Documenta Praehistorica, University of Ljubljana, Faculty of Arts, Department of Archaeology, Ljubljana
- DolgCluj – Dolgozatok az Erdélyi Nemzeti Múzeum Érem- és Régiséggyűjtéséről, Kolozsvár
- DTKFD – Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Dergisi
- EJA – European Journal of Archaeology
- ERAUL – Études et Recherches archéologiques de l'Université de Liège
- ÉtAlex – Études Alexandrines, Centre d'Études Alexandrines
- ÉtTrav – Etudes et travaux. Studia i prace. Travaux du Centre d'archéologie méditerranéenne de l'Académie Polonaise des Sciences
- EurAnt – Eurasia Antiqua. Deutsche Archäologisches Institut, Berlin
- FrC – Fragmenta Comica
- FolArch – Folia Archaeologica. A Magyar Nemzeti Múzeum Évkönyve. Annales Musei Nationalis Hungarici, Budapest
- FSI – Forensic Science International
- Germania – Germania. Anzeiger der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt
- Geoarchaeology – Geoarchaeology. An International Journal
- Hesperia – Hesperia. Journal of the American School of Classical Studies at Athens, Cambridge
- HOMO – HOMO. Journal of Comparative Human Biology, Stuttgart
- Human Evolution – Human Evolution, International Institute for Humankind Studies and University of Florence
- Ialomița – Ialomița. Studii de cercetări de arheologie, istorie, etnografie și muzeologie, Slobozia
- IJO – International Journal of Osteoarchaeology
- Iran – Iran. Journal of the British Institute of Persian Studies
- IstMitt – Istanbul Mitteilungen, Istanbul
- Istros – Istros, Muzeul Brăilei, Brăila
- IzvestijaVarna – Izvestija na Archeologiceskii Institut, Sofia
- JAHA – Journal of Ancient History and Archaeology, Cluj-Napoca
- JAnat – Journal of Anatomy
- JAS – Journal of Archaeological Science
- JAS: Reports - Journal of Archaeological Sciences: Reports
- JDAI.AA – Jahrbuch des Deutschen Archäologischen Instituts, Archäologischer Anzeiger, Berlin
- JFS – Journal of Forensic Sciences

- JHE – Journal of Human Evolution
 JRA – Journal of Roman Archaeology
 JRGZM – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz, Mainz
 JRS – The Journal of Roman Studies
 KST – T. C. Kültür Bakanlığı, Eski Eserler ve Müzeler Genel Müdürlüğü, I. Kazı Sonuçları Toplantısı, Ankara / Republic of Turkey, General Directorate of Ancient Monuments and Museums, Ankara, Turkey
 LIMC – Lexicon Iconographicum Mythologiae Classicae, Zürich, München, Düsseldorf
 Litua – Litua, Studii și cercetări, Târgu-Jiu
 LRBC – *Late Roman Bronze Coinage A.D. 394-498*, Londra, 1965: I, *The Bronze Coinage of the House of Constantine A.D. 324-346* (P. V. Hill, J. P. C. Kent); II, *Bronze Roman Imperial Coinage of the Later Empire A.D. 346-498* (R. A. G. Carson, J. P. C. Kent).
 Macedoniae Acta Archaeologica – Macedonian Archaeological Society, Skopje, Republic of Macedonia
 MAMA – Monumenta Asiae Minoris antiqua. Publications of the American Society for Archaeological Research in Asia Minor
 Marisia – Marisia. Studii și materiale. Arheologie – Istorie – Etnografie, Târgu Mureș
 Marmatia – Muzeul Județean de Istorie și Arheologie Maramureș, Baia Mare
 MarNero – Il Mar Nero. Annali di archeologia e storia
 MCA – Materiale și Cercetări Arheologice, București
 MDOG – Mitteilungen der Deutschen Orient Gesellschaft
 MemAnt – Memoria Antiquitatis, Piatra Neamț
 MFMÉ – A Móra Ferenc Múzeum Évkönyve, Szeged
 Mousaios – Mousaios. Buletinul Științific al Muzeului Județean Buzău
 MuzNaț – Muzeul Național, București
 NAC – Numismatica e Antichità Classiche, Lugano-Pregassona
 OIP – Oriental Institute Publications, University of Chicago
 OJA – Oxford Journal of Archaeology, Oxford
 Olba – Mersin University Publications of the Research Center of Cilician Archaeology, Mersin, Turkey
 PALMA – Papers on Archaeology of the Leiden Museum of Antiquities, Leiden, Olanda
 PAS – Prähistorische Archäologie in Südosteuropa, München-Berlin
 PBF – Prähistorische Bronzefunde, Münster
 Peuce – Peuce. Studii și cercetări de istorie și arheologie, Institutul de Cercetări Eco-Muzeale, Tulcea
 Phoenix – Phoenix. The Journal of the Classical Association of Canada
 Plural – Journal of the History and Geography Department „Ion Creangă” Pedagogical State University, History, Culture. Society. Seria Archaeologica II, Chișinău
 PMMB – Publicațiile Muzeului Municipiului București
 Pontica – Pontica. Studii și materiale de istorie, arheologie și muzeografie, Muzeul de Istorie Națională și Arheologie Constanța
 PZ – Prähistorische Zeitschrift, Berlin-Mainz
 Quaternary International – Quaternary International. The Journal of the International Union for Quaternary Research
 Quaternary Science Reviews – Quaternary Science Reviews. The International Multidisciplinary Research and Review Journal
 RA – Revue Archéologique, Paris
 RAASI – Revista de Arheologie, Antropologie și Studii Interdisciplinare, Institutul de Cercetări Bioarheologice și Etnoculturale, Republica Moldova
 Radiocarbon – An International Journal of Cosmogenic Isotope Research, Cambridge
 RCAN – Revista de Cercetări Arheologice și Numismatice, Muzeul Municipiului București
 RevBistr – Revista Bistriței. Complexul Muzeal Bistrița-Năsăud, Bistrița
 RevMuz – Revista Muzeelor, București
 RGZM – Römisch-Germanisches Zentralmuseums Mainz, Mainz
 RIC – *The Roman Imperial Coinage*, Londra: I², *From 31 BC to AD 69*, 1984 (C. H. V. Sutherland); II, *Vespasian to Hadrian*, 1926 (H. Mattingly, E. A. Sydenham); II.1, *From AD 69-96. Vespasian to Domitian*, 2007 (I. A. Carradice, T.V. Buttrey); II.3, *From AD 117-138. Hadrian*, 2019 (R. A. Abdy, P. F. Mittag); III, *Antoninus Pius to Commodus*, 1930; IV.1, *Pertinax to Geta*, 1968 (H. Mattingly, E. A. Sydenham); IV.2, *Macrinus to Pupienus*, 1938; IV.3, *Gordian III – Uranius Antoninus*, 1949 (H. Mattingly, E. A. Sydenham, C. H. V. Sutherland); V.1, 1927 (reimprimat 1968; P. H. Webb); VII, *Constantine and Licinius A.D. 313-337*, 1966 (P. M. Bruun); VIII, *The Family of Constantine I A.D. 337-364*, 1981; X, *The Divided Empire and the Fall of the Western Parts A.D. 395-491*, 1994 (J. P. C. Kent)
 SAA – Studia Antiqua et Archaeologica, Iași
 Sargetia – Sargetia. Acta Musei Devensis. Buletinul Muzeului județean Hunedoara, Deva

SAV – Študijné zvesti Archeologicky ústav SAV, Nitra
Sci Rep – Scientific Reports
SCIV(A) – Studii și Cercetări de Istorie Veche (și Arheologie), București
SCN – Studii și Cercetări de Numismatică, București
Seleucia – Seleucia. Olban Excavations Series
SP – Studii de Preistorie, București
SprawArch – Sprawozdania Archeologiczne, Warsaw
SRMKA – Seramik Araştırmaları Dergisi, The Journal of Ceramic Research
StArchBrno – Studia Archaeologica Brunensia, Masaryk University, Brno
Starinar – Starinar. Arheološki institut Beograd
StComPitești – Studii și Comunicări, Seria Istorie, Muzeul Județean Argeș, Pitești
StudCom Satu Mare – Studii și comunicări Satu Mare
Studia Praehistorica – National Archaeological Institute with Museum of the Bulgarian Academy of Sciences
Syria – Syria. Archéologie, art et histoire. Institut Français du Proche-Orient
Terra Sebus – Terra Sebus. Acta Musei Sabesiensis, Anuarul Muzeului Municipal „Ioan Raica”, Sebeș
Th-D – Thraco-Dacica, București
Thracia – Thracia, Sofia
TIB – *Tabula Imperii Byzantini*, Wien
Transylvanian Review – Transylvanian Review. Centrul de Studii Transilvane, Cluj-Napoca
TÜBA-AR – TÜBA-AR Türkiye Bilimler Akademisi arkeoloji dergisi (TÜBA-AR Turkish Academy of Sciences Journal of Archeology)
UPA – Universitätsforschungen zur Prähistorischen Archäologie, Bonn
VAH – *Varia Archaeologica Hungarica* V. Redigit Csanád Bálint. Publicationes Instituti Archaeologici Academiae Scientiarum Hungaricae, Budapest
Varia Anatolica – *Varia Anatolica*. L’Institut Français d’Études Anatoliennes, Istanbul
Ziridava – Ziridava. Studia Archaeologica, Arad