Supplementary file 1

Annex 1: Description of raw material types

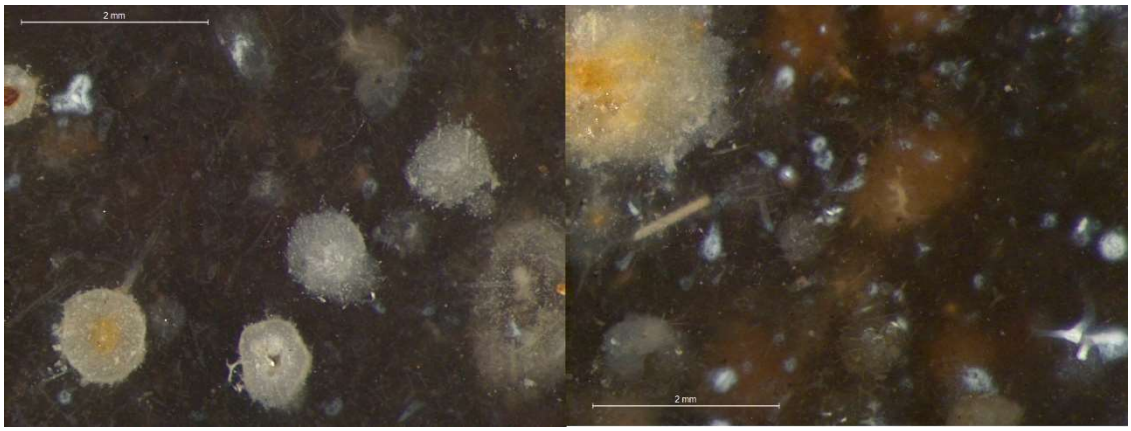
Type: 3422A Reference piece: KK C3

Macroscopic description
- Colour: 5Y 2.5/1-8/1
- Appearance: heterogeneous
- Feel: slimy-dry
- Silicification: high
- Cortex: rolled and sinter on the cortex, neocortex, greenish
- Size of cortex: <0.02mm
- Shape of silicite: nodule
- Size of silicite: >4.5cm

Microscopic description
- Sedimentary texture: grainstone - packstone
- Aspect of groundmass: translucent
- Components: abundance 25%
  - Size: 1-3mm
  - Class (Pilkey): 1-2
  - Preservation: white, partially dissolved, strange milky silicification
  - Category / Species: sponge larvae
    many partially dissolved spicules lots are rounded
    iron oxide few in components, much subcortical
- Sedimentary struct. -

Interpretation
- Biotope: marine, border of neritic to pelagic domain (neritic with deep marine influences)
- Geol.-geogr. provenience: debris and sinter on surface-> river terrace or valley, cortex rolled, greenish
- Archeologic provenience: Palaeolithic Korobchyne-kurhan (material provided by O. Nezdolii), Melnychna Krucha, Mohylna III

Left side 3422A right side (light) 3422B



Annex 2: Description of raw material types

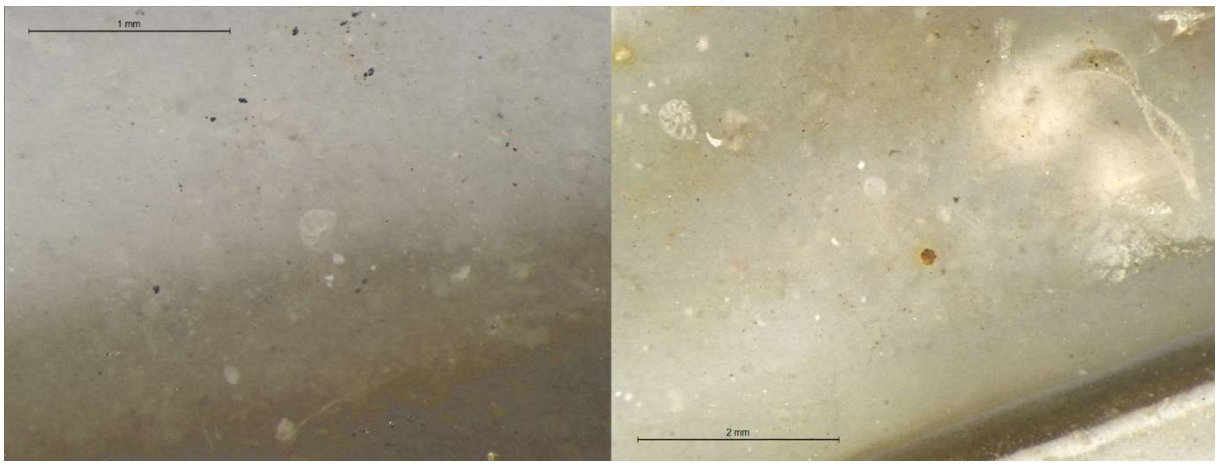
Type: 3422B Reference piece: KK C4

Macroscopic description
- Colour 2,5Y 6/0 (subcortical 2,5Y 3/2)
- Appearance homogenous withe under the cortex there is a brownish stripe
- Feel rough
- Silicification high
- Cortex siliceous (subcortical zone higher silicified, more translucent), directly out of limestone
- Size of cortex <6mm
- Shape of silic. probably nodule
- Size of silic. >6cm

Microscopic description
- Sedimentary texture mudstone
- Aspect of groundmass withe slightly translucent
- Components abundance 2%
  - Size <1mm
  - Class (Pilkey) 2-3
  - Preservation white, translucent foraminifera
  - Category / Species small foraminifers, loges a bit plated but with rounded contours
    yellowish opaque elements,
    white balls: some are different silicified foraminifers
    spicules cf. (mostly subcortical)
- Sedimentary struct. -

Interpretation
- Biotope marine, deep -> small globular foraminifers
- Geol.-geogr. provenience unknown probably near Palaeolithic Korobchyne-kurhan
- Archeologic provenience Palaeolithic Korobchyne-kurhan (material provided by O. Nezdolii), Melnychna Krucha and Mohylna III

Remark elements are fewer, longer and thinner and silicification is different to Type 3422A



Annex 3: Description of raw material types

Type: G U2A Outcrop: Velyka Vys River Outcrop

Macroscopic description
- Colour 10YR 3/2 - (4/1)
- Appearance strongly irregular very chalky cortex
- Feel rough
- Silicification high
- Cortex silicatic-dissolved, sub-primary
- Size of cortex irregular thin
- Shape of silicite irregular nodule
- Size of silicite 30cm but irregular with chalky inclusions

Microscopic description
- Sedimentary texture wackestone - packstone
- Aspect of groundmass translucent, more opaque foggy areas, opaque grains white-red
- Components abundance 10-25%
  - Size 50-1500μm
  - Class (Pilkey) 2
  - Preservation white rims some dissolution
  - Distribution heterogeneous
- Category / Species

+++ Longish cone shaped elements partially fragmented -*Incertaesedis* +++, cones more triangular (*Tinitinnina*), spicules (+)

++ Black minerals (not rounded) maybe several kinds some could be tourmaline, some are a bit magnetic, some with plated habitus could be charcoal to possibly anthracite

+(+)Quartz grains large not rounded - maybe other transparent with a stronger cleavage (possibly Tourmaline or Titanite)

+ Clasts, possibly Intraclasts (chalky) and rock pieces

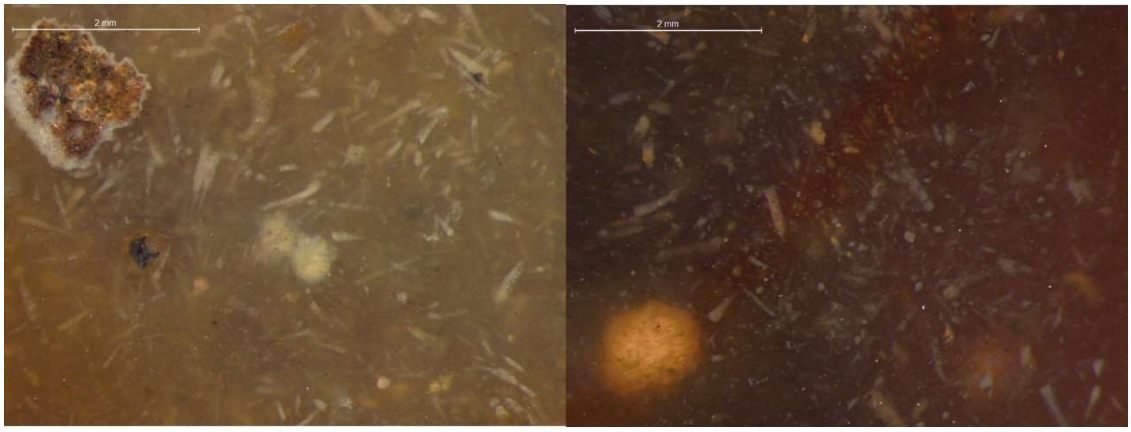
Whitish balls some Trout spots (taches truitée)

Small shell fragments

(+) Green minerals

- Sedimentary struct: swirled and irregular (reworking)

Interpretation
- Biotope: Could be out of brackish waters.
- Geol.-geogr. Provenience: Outcrop near Korobchyne
- Archeologic provenience: Korobchyne-kurhan



Annex 4: Description of raw material types

Type: G U2Bc Outcrop: Velyka Vys River Outcrop

Macroscopic description

Colour

Appearance dark with some light areas some have reddish-blackish zone under cortex, there are pieces with strong reddish-blackish colourings inside and greenish cortex

Feel rough, dry

Silicification moderate-high

Cortex dissolved

Size of cortex +/- 0.01mm

Shape of silicite rather irregular nodule

Size of silicite 10-50cm

Microscopic description

Sedimentary texture wackestone-packstone

Aspect of groundmass translucent with small opaque grains, in parts many red grains semi opaque small comp (chalk)

Components abundance 15-30%

Size 50-1200μm<8mm

Class (Pilkey) 2

State/Preservation most glittering (empty), some white

Category / Species

+++ Longish elements: algae filaments ++, *Incertaesedis* ++ spicules+, Tintinnina++

+(+) Chalk elements

(+) Trout spots (+)

+ Bioclasts

(++) Areas with condensed organic matter in matrix

(+) Algal strings or roots- Org preservation

(+) Quartz grains small

(+) Small - medium black minerals (some nearly cubic-octahedral shape)

Sedimentary struct. swirled maybe some reworking

Interpretation

Biotope

Geol.-geogr. Provenience secondary deposition in region with strong erosion (ferrigeneous)

Archeologic provenience:

Remark could have some similarities like U7, some areas have impregnation of iron in elements.