

BOTANICAL MATERIALS

(including micro-remains & palaeoenvironmental remains)

GLOSSARY

Botanical materials: plant materials (e.g. fruits, seeds, flowers, leaves, stems, pollen, wood and roots).

Micro-remains and palaeoenvironmental material: small items recovered from sieving of bulk samples from archaeological excavations. This may include micro-fauna and faunal palaeoenvironmental remains.

STORAGE

- ◆ Botanical materials are vulnerable to decay by micro-organisms such as bacteria, algae and fungi, but good storage can help minimise the rate of deterioration.
- ◆ Store in airtight container with padding to avoid vibration. Robust materials (e.g. seeds) can be bagged.
- ◆ Avoid stacking fragile botanical materials on top of each other. Make sure that 2D materials lie on a flat padded surface.
- ◆ Never use silica gel.

LABELLING AND MARKING

- ◆ Undertake a documentation check to ensure that the information is correct before remains are marked.
- ◆ Ensure that marking is clear and legible.
- ◆ Label bags or boxes, not the botanical materials themselves.



Plant remains © Bristol Culture

ENVIRONMENTAL DATA

The general rule to maintain botanical materials is to keep them chilled and dark, as close as possible to conditions in the ground.

- ◆ Temperature: below 10°C.
- ◆ Humidity: 45-55% (over 65% RH is high risk for mould).
- ◆ Illuminance: 300 lux maximum.
- ◆ UV Radiation: 0-10 microwatts per lumen ideal. 75 microwatts per lumen maximum.

INDICATORS OF DECAY

- ◆ Disintegration.
- ◆ Mould.
- ◆ Pests (e.g. beetles, rodents).

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WHERE YOU WILL COME ACROSS BOTANICAL MATERIALS

- ◆ In archaeological excavation archives.
- ◆ Samples from individual objects for identification and dating.

HANDLING

Botanical materials are especially at risk from breakage and contamination. Handle and move samples inside boxes or bags.

- ◆ Use nitrile gloves.

LOOK OUT FOR

Paleoenvironmental samples should be processed before deposition. Accepting or storing unprocessed bulk samples long-term is not recommended. Make sure each botanical sample has been given a unique identifier before deposition. Knowing where the samples are published is beneficial.

HEALTH AND SAFETY

- ◆ Botanical materials can be contaminated with mould or with chemicals from the excavation site (e.g. toxic metal salts, cess-pit material).
- ◆ Wear an appropriate facemask if mould is a risk.
- ◆ Use gloves, and avoid opening bags and boxes.



Wet macroscopic plant remains © Bristol Culture

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SOURCES OF FURTHER INFORMATION

Brown, D.H. (2011a) *Archaeological Archives – A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Second Edition). Archaeological Archives Forum (AAF)

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