Object Code: Residues for proteomic analysis July 2025 Quantity: 210.00 Cultural Association: Maker: Production Place:

Description:

Our target collection materials are visible residues adhered to the surface of symbolic artifacts, such as ostrich eggshell beads or marine shells. Therefore we are not studying the object itself as much as the proteins captured by its surface accumulations.

Our sampling process is minimally destructive to the artifact. Using sterile tools, we typically remove 1–3 milligrams of residue from each bead's surface—often leaving no visible marking on the artifacts themselves. Samples are immediately transferred into sterile Eppendorf tubes for transport. Sampling will occur at the curation location, ensuring that only the residue, and not the artifact itself, is exported for analysis. Our procedure (see attached document for steps) includes pre and post sampling digital microscop photos of each artifacts surface, helping document the form and condition of each object.

Note that we have currently identified 177 sample contexts suitable for our study, and detailed provenience information is provided for each of these in the attached excel table. Two further sites will be assessed in July 2025 (De Hangen and Elands Bay Cave), and we anticipate an absolute maximum of 210 residue samples.

If any proteomic results are unexpected, uniquely important, or from poorly resolved chronologies, we will export up to 20 individual artifacts for destructive radiocarbon dating. Note that this is not a default position, and will only take place in cases we deem necessary. The protein data and photographic inventory will help preserve the maximum available data for any dated artifact. Smaller items (particularly OES beads) often require processing of the entire sample, whereas larger artifacts (such as marine shells) will have a small portion removed for dating using a Dremel drill, leaving the majority of the artifact intact. Any unused material will be returned to its original curation location.

Provenance:

These residues are adhered to artifacts from the Holocene and Late Pleistocene of South Africa. See the attached excel table for a full list of sites and provenience information.