

## Export/sampling permits

Please note an export permit must be linked to an object or site that has to be created on SAHRIS! If the object/site you want to work on has not been created yet, you would need to do so. Thanks!

The proposal should include (you can fill these in below):

- a list of participants (name, affiliation, phone no, email addresses) and how they are involved;
- the name and address of the facility, including address, it is being scanned at;
- name and address of the museum/university department that currently hosts the object;
- names of the responsible person(s) during transport and while the fossil is at the facility;
- the period/time frame during which the fossil(s) will be outside the country;
- detailed information on the fossil(s), especially as it is a "unique" specimen;
- detailed information on the research project behind it & methodology including expected outcomes (i.e., the reason for export);
- the written confirmation of the institution that currently hosts the object that the object may be used as proposed and be returned in good condition;
- should there be any damage/destructive analysis (e.g., coating for higher resolution) undertaken, this needs to be stated in detail;
- Statement why this study cannot be done in South Africa.

**Applicant (name and affiliation): this is usually the museum curator!**

Dr. Curtis W. Marean

**Applied for (principal researcher): Dr. Curtis W. Marean**

**Participants with affiliations, email addresses, phone numbers (& their role):**

1) Dr. Curtis W. Marean, Institute of Human Origins, Arizona State University, 480-965-7796, curtis.marean@asu.edu

Role: applicant

2)

Role:

3)

Role:

The material will be **hand-carried** to Arizona State University (facility/institution) in July, 2016 (month, year) by Curtis W. Marean (name of person responsible for transport) and brought back by February, 2017 (leave blank if same person as above).

Curtis W. Marean (name) will be involved with the transport (e.g., transport/scanning) of objects and

---

(whatever else).

**Institution incl. address that currently hosts the object:**

MAPCRM PTY, Private Bag X5, Suite 40, Hartenbos, 6520 and Dias Museum, Munro House, Mossel Bay

**Facility incl. address at which the experiment will be done:**

Beta Analytic Inc., 4985 SW 74th Court, Miami, Florida 33155, USA, Tel: (1) 305-667-5167, Fax: (1) 305-663-0964, E-mail: lab@radiocarbon.com

**Table of objects or upload file:**

418202 - Mollusc

NorthingMidpointSA	EastingMidpointSA	ElevationMidpointSA
-3786845.89741	-83726.43671	20.26784

418203 - Mollusc

NorthingMidpointSA	EastingMidpointSA	ElevationMidpointSA
-3786845.99865	-83726.46879	20.29768

**Site including age at which object was found:**

PP5-6 – most of this site is MSA, but we think these shells are a remnant of an LSA shell midden.

**Time frame:**

Transport to \_\_\_ASU\_\_\_\_\_ (facility): \_\_\_\_\_ July 2016 \_\_\_\_\_ (date)

Return date: \_\_\_\_\_ Feb 2017 \_\_\_\_\_ (date)

**Aim/rationale:**

We will conduct C14 dating on two specimens (418202, 418203) of marine mollusc that were cemented to an exposed rocky roof fall horizon at PP5-6. These molluscs were not stratified in the site, but rather cemented to exposed rock. Their position is under the drip line where much of the deposits has been cemented. While all the other sediments at the site date beyond the range of radiocarbon dating, we are trying C14 on these because we suspect they may be of Holocene age. At PP5-6 South, we dated some molluscs cemented to a stalagmite, and they surprisingly range in age to the middle and late Holocene. Since they are in a dense cemented shell layer that exists as a hanging remnant, we now suspect that the entire flat sediment surface outside PP5-6 South was once entirely covered (and protected) by a shell midden. There are historical reports, particularly along the Knysna coastline, that in the historic period some shell middens were burnt for the production of lime. We suspect this may have occurred at PP5-6 South. If this is true, then a Holocene midden may have extended to PP5-6 North, and this cemented shell may be a remnant of that. We wish to test this idea.

**Methodology (short):**

A small section will be cut from each shell and submitted for C14 dating.

**Confirmation/permit by museum (Attached?):**

Attached

**Damage/destructive analysis? (if yes, explain in detail)**

Yes, as noted above a small section will be cut with a rock saw and submitted for C14 Dating.

**Statement why this study cannot be done in South Africa:**

While the IThemba lab has developed an AMS capacity, their web page states that they do not yet have a sample preparation lab to prepare archaeological samples for measurement.