

TEMPLATE

ANNUAL / FINAL PERMIT REPORT

-TYPE OF PERMIT (report)-

(Palaeontological – annual excavation / collection; final excavation / collection; test excavation; annual collection from a specific formation or group; final collection from a specific formation or group; destructive sampling; temporary / permanent export; maintenance; filming; destruction of site.

Archaeological – annual research excavation; final research excavation; test excavation; surface collection; destructive sampling; temporary / permanent export; maintenance; filming; phase II mitigation (not covered in this document); destruction of site.

Meteorites – collection.)

GENERAL INFORMATION

(applies to all permits)

A. Title Page:

Must include the following:

- Title of report (noting whether the report is an annual or final report):
[Annual](#)
- Permit Number: [2682](#)
- SAHRIS Case ID: [11860](#)
- Author of report: [Sarah Wurz](#)
- Date of report: [26 February 2020](#)
- Name of SAHRA permit officers on permit: [Ragna Redelstorff](#)
- Date of permit issue: [February 09, 2018](#)
- Report due date: [28 February 2019, 29 February 2020](#)
- Expiry date of permit (for all non-permanent destruction/export):
[28/02/2021](#)
- Permit Holder- as on permit (Name and affiliation): [Prof Sarah Wurz](#)
- Permit To (Names and affiliations of researchers): [Prof Sarah Wurz](#)
- Name of site(s): [Klasies River Caves, Humansdorp District \(9/2/044/0003\)](#)
- Object ID's reflected on the permit:

B. Executive Summary:

- Brief summary of activities carried out. (no more than 500 words).

One excavation season was carried out, between 22 June and 8 July. No fieldwork was undertaken during 2019, due to a lack of funding, but an excavation season is undertaken in March 2020. During the 2018 season the Witness Baulk was excavated further, and two layers, BOSTHREE (Block Occupational Soil Three), continuing from 2017, and SBLS (Silty Black Soil) was excavated. SBLS was excavated only in Squares C1-C3. BOSTHREE and SBLS contains abundant lithics, shellfish, large mammal fauna and microfauna. No intact hearths occur in BOSTHREE, although the

presence of heated quartzite blocks have been noted and published upon. BOSTHREE is characterised by abundant speleothem material. Four Honours and two MSc dissertations, including material from BOSTHREE have been completed. Layer SBLS contains intact hearths with the ashes still present and lithic artefacts of a somewhat different nature than those of the overlying BOSTHREE, as well as shellfish and fauna. A PhD thesis including the lithics from BOSTHREE and SBLS have been completed. Between 2018 and 2019 five peer reviewed articles on the excavated material from the Witness Baulk has been published. During 2018 the upper Howiesons Poort layers were also sampled for microfauna and cryptotephra. Dating samples for OSL have been taken by Dr Simon Armitage.

C. SAHRIS object or site links:

- Provide a list of links to all the relevant objects and/or sites as they appear on the SAHRIS database (preferably as active hyperlinks to object ID's and not as a web address).

D. Location details

Locations, sites, artefacts, specimens, repositories, research facilities etc. Each should have its own independent entry.

**(This may also refer to the location from which materials originate in the case of materials already curated and to which facility the materials are being sent to, e.g. a museum or a research laboratory. This applies to export and sampling permits).*

- Location name(s); [Klasies River Caves](#)
- GPS coordinates; [34,05°S, 24,23°E](#)
- Nearest town; [Humansdorp](#)
- Local District; [Kouga Local Municipality](#)
- Magisterial District; [Sarah Baartman District Municipality](#)
- Province; [Eastern Cape](#)
- Approximate age of materials. [110 000 years old](#)

E. List of all participating researchers:

- Provide a list of all participating researchers/excavators/technicians, their qualifications and their affiliated institutions (for research excavations or collections the crew should be listed per season).

Name	Qualification	Institution
Mareike Brenner	PhD student	WITS
Joshua Kumbani	PhD student	WITS
Kuni Mosweu	MSc student	WITS
Nompumelelo Maringa	MSc student	WITS
Pamela Akuku Achieng	MSc student	WITS
Kelita Shadrach	PhD student	WITS
Peter Morrissey	PhD student	WITS

Madelon Tusenius	Research associate	WITS
Paul van der Linde	Honours student	WITS
Liezl van Pletzen	Research associate	WITS
Dominic Stratford	Professor	WITS
Jerome Reynard	Doctor	WITS
Turid Hillestad-Nel	post doc	University of Bergen
Silje Bentsen	post doc	WITS

F. Curation of materials:

(does not apply to Filming and Maintenance permits)

- Name of institution (where the material will be housed or where it originates from and will be returned to); [Iziko Museums](#)
- Name of curator; [Dr Wendy Black](#)
- Phone number of curator;
- E-mail address of curator; wblack@iziko.org.za
- Institutional address; [Iziko Museums, Queen Victoria Street, Cape Town](#)
- Institution/facility where the material will be sent to (for analysis) and corresponding details as outlined above (for export permits). n/a
- How is the material being curated? How many boxes, in what bags, accession list etc. [The artefacts are placed in plastic bags after they have been washed, and these are grouped in standard Iziko boxes. The estimated number of boxes resulting from the 2018 season is 11.](#)

SPECIFIC INFORMATION

(separate sections relate to specific permit types)

G. Archaeological research collections and excavations:

**Please note: SAHRA APM Unit understands the sensitive nature of research data, and would like to stress that the content of the permit report should therefore be focussed on the methodology used, and the curation of excavated / collected materials rather than on the research findings (the submitted reports are also kept private). This is to ensure that SAHRA is able to track all excavations / collections and the location and curation of artefactual material. All research findings should be submitted in the form of links to published journal articles.*

- Please complete the following table for each field season conducted under this permit. A list of collected artefacts and material (This should be a listing of number of types of artefacts found per stratigraphic unit noting the raw materials (e.g. Layer 5 – 24 silcrete formal tools, 85 silcrete debitage, 18 quartzite formal tools, 75 quartzite miscellaneous, 45 bone fragments etc).

Responsible person 1 Full name:	Sarah Wurz, PhD, Professor of Archaeology
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<i>Position/academic level:</i>	
Responsible person 2 <i>Full name:</i> <i>Position/academic level:</i>	
Responsible person 3 <i>Full name:</i> <i>Position/academic level:</i>	
Number of participants	
Duration of field work (e.g., 3-15 May 2015)	22 June – 7 July
Excavation equipment used (e.g., trowels, picks, chisels, total station, screen mesh sizes)	Trowels, total station, two nested sieves
Indication of volume excavated numbers or names of stratigraphic units removed, approximate volume excavated (estimated bucket count)	BOSTHREE (including SMONE/BOSTHREE interface) 52 810ml, SBLS 19 080ml, Howiesons Poort layers, cave 1A, 12 550 ml removed for sample for microfauna (still to be sorted, only microfauna removed)
Samples provide a list of all samples taken and what analysis is planned to be carried out. (e.g. charcoal samples taken for radio-carbon dating, samples and placement of scimitars for TL dating)	Dating on speleothem samples (X3); charcoal analysed by Honours student, Howiesons Poort OSL dating samples by Dr Simon Armitage.
Description of work/methodology excavation strategy, recording techniques used etc.	All items over 2cm plotted with a total station; excavators record the details found (see spreadsheet uploaded "Klasies record sheet"), these are digitized and included in the excavation narrative. Thereafter specialist analyses of the different categories of material take place.

Table 1 2018 SEASON TOTAL STATION LIST OF PLOTTED FINDS

Row Labels	SMONE-BOSTHREE interface	BOSTHREE	SBLS	SBLS OVER SH	Grand Total
Ash		1			1
Bone	61	114	65	6	246
Botanical sample		2			2
Charcoal	7	26	22	3	58
Lithic (quartzite)	167	327	176	14	682
Ochre		3	3		6
Pebble	14	15	4		33
Rubefied quartzite	32	34	9		75
Shell	16	41	30		87
Shell Turbo		2	4		6
Soil sample	4				4
Stone (non artefactual)	51	47	23		121
Stone (pebble)		1			1
Tufa	17	34	21	2	74
Grand Total	369	648	361	25	1396

**Table 2 Shellfish from BOSTHREE
(including SMONE BOSTHREE interface)
SBLs under study)**

LAYER	BOSTHREE
Species	g
Achatina zebra	1323.5
Aulacomya atra	2.1
Perna perna	1164.5
Choromytilus meridionalis	0
Diloma sinensis	346.9
Turritella carinifera	0
Dinoplax gigas	26.8
Burnupena limbosa	165.5
Barnacles	12.3
Donax serra	34.5
Bullia digitalis	2.6
Turbo sarmaticus	919.4
Haliotis midae	34.64
Haliotis spadicea	0
Scutellastra argenvillei	31.53
Scutellastra cochlear	5.6
Scutellastra longicosta	62.6
Scutellastra tabularis	15.9
Scutellastra barbara	0.6
Cymbula oculus	506.33
Cymbula oculus/granatina	0
Cymbula granatina	0
Patella sp.	362.17
Total	5017.47

**Table 3. KRM lithic density for square
C1 – BOSTHREE & SBLs**

	BOS Three	SBLs
lithic artifacts n	1684	2475
liter	27.3	8.5
artifact density	61.68	291.18

**Table 4: BOSTHREE and SBLs SQUARE C1:
Assemblage composition, pieces >2cm.
Percentage in brackets relates to the grand total
(including small debitage).**

Assemblage composition	BOS	SBLs
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	Three			
	n	%	n	%
point	22	7%	15	8%
blade	10	3%	1	1%
bladelet	4	5%	1	1%
flake	53	17%	40	20%
point/blade fragment	67	21%	38	19%
bladelet fragment	11	3%	8	4%
fragment	79	25%	59	30%
core	8	3%	2	1%
chunk	55	17%	29	15%
hammerstone	0		0	
cobble/pebble	8	3%	6	3%
Total > 2cm	317	100%	199	100%
small debitage	1684	(84%)	2276	(92%)
Grand total	2001	(100%)	2475	(100%)

Conclusions reached: (for final reports)

- *Note this can be submitted in the form of the department's / museum's annual report if exhaustive.*

Additional Content:

- Please include any additional information which may be relevant.

Additional Documents:

The reports should be accompanied by the following documents (where possible):

- Map indicating (major) collection points including GPS coordinates (for surface collections);
- If possible, receipt of curating institution that material was received; [Iziko was closed until now, so the material is temporarily kept at the Origins Centre, WITS university](#)
- Written permission from all affected landowners; [\(this was included in permit application\)](#)
- A geographic map (at least 1:10 000 or 1:50 000), clearly indicating the location of the site (for single site excavations); [;\(this was included in permit application\)](#)
- A detailed stratigraphic diagram for the site, showing the relevant excavated layers, the positioning of collected samples etc. [\(see attached to this report\)](#)
- Photographs of sites and a representative sample of artefacts [\(please see Brenner & Wurz 2019 for lithics images; Brenner & Wurz for heated quartzite images; Larbey et al for micromorphology images and relevant sections\)](#)

- List of publications and theses in connection with this permit (if “in press, in review, submitted or in prep”, indicate the journal it is planned to be published in).

PUBLICATIONS

1. Van Pletzen-Vos, L., Brink, J., Reynard, J.P., Wurz, S. 2019. Revisiting Klasies River: a report on the large mammal remains from the Deacon excavations of Klasies River main site, South Africa. *South African Archaeological Bulletin Reports* 74 (211): 127–137.
2. Van Wijk, Y., Rust, R., Uithaler, E.M. & Wurz, S. 2019. Ethnobotanical research at Klasies River linking past, present, and future. *Ethnobotany Research and Applications*. 1-24 <http://dx.doi.org/10.32859/era.18.34.1-24>
3. Bentsen, S.E. & Wurz, S. 2019. Color Me Heated? A Comparison of Potential Methods to Quantify Color Change in Thermally Altered Rocks. *Journal of Field Archaeology* 44(4): 215-233. DOI: 10.1080/00934690.2019.1591092
4. Brenner, M.J., & Wurz, S. 2019. A high-resolution perspective on MIS 5c-d lithic assemblages from Klasies River main site Cave 1. *Journal of Archaeological Science: Reports* 26: 101891:1-33. <https://doi.org/10.1016/j.iasrep.2019.101891>
5. Larbey, S. Mentzer, S.M., Ligouis, B., Wurz, S., Jones, M.K., 2019. Cooked Starchy Food in Hearths ca. 120 kya and 65 kya (MIS 5e and MIS 4) from Klasies River Cave, South Africa *Journal of Human evolution*. 131: 210-227. <https://doi.org/10.1016/j.jhevol.2019.03.015>
6. Kumbani, J., Bradfield, J. Rusch, N. Wurz, S. 2019. A functional investigation of southern Cape Later Stone Age artefacts resembling aerophones. *Journal of Archaeological Science: Reports* 24: 693-711. <https://doi.org/10.1016/j.jasrep.2019.02.021>
7. Wurz, S. Bentsen, S., Van Pletzen-Vos, L., Reynard, J. Brenner M., Mentzer, S., Pickering, R. Green, H.E. 2018. Connections, culture and environments 100 000 years ago at Klasies River main site, *Quaternary International* 495: 102-115. <https://doi.org/10.1016/j.quaint.2018.03.039>
8. Hillestad Nel, T., Wurz, S., Henshilwood, C.S. 2018. The small mammal sequence from Marine Isotope Stage 5 at Klasies River main site, South Africa – taphonomic aspects and palaeoenvironmental implications. *Quaternary International*. 471A: 6-20. <https://doi.org/10.1016/j.quaint.2017.08.074>
9. Novello, A., Bamford, M, Van Wijk, Y., Wurz, S. 2018. Phytoliths in modern plants and soils from Klasies River, Cape Region (South Africa). *Quaternary International*. 464: 440-459.

THESES

PHD

1. 2017 - Joshua Kumbani, PhD, WITS, “Music, a hidden phenomenon in the archaeological record of the southern Cape”.
2. 2016 - 2020 Mareike Brenner, PhD WITS, “ MIS 5 lithic industries from Klasies River”.

MSC

1. 2019 - Inez Faul, “MIS 5c-d at Klasies River: An analysis of microfossils to infer paleoenvironmental change

2. 2019 – Alexandra Pearson, “The faunal assemblages from the transition between the Howiesons Poort and MSA III at Klasies river cave 1”,
3. 2018 - Amy Smith, MSc, WITS, “Bones for thought: A taphonomic study of the faunal remains from early MIS 5 at Klasies River main site”.
4. 2018 - Nompumelelo Maringa, MSc, WITS, , “Palaeoecological and taphonomic analysis of the micromammals from Marine Isotope Stage 5 levels at Klasies River”
5. 2017 - Storme Gathercole, MSc, WITS, “Archaeology in the CAPS Curriculum and Modern Human Origins at Klasies River”.
6. 2018 - 2019 Pamela Akuku Achieng, MSc, WITS, “A taphonomic analysis of large mammal fauna from the lower Howiesons Poort layers at Klasies River”.
7. 2017 - 2019 Kuni Mosweu, MSc, WITS, A study of silcrete raw material acquisition in the Howiesons Poort at Klasies River using GIS catchment analysis techniques

HONOURS

1. 2019 Sbani Magubane, charcoal from the 100 000 year old levels at Klasies River
2. 2019 Jasmin Culey, ochre from the 100 000 year at Klasies River
3. 2019 Rone Oberholzer, Howiesons Poort lithics from square J51.
4. 2018 Inez Faul, Klasies River Howiesons Poort bone tools
5. 2018 Alexandra Pearson, Klasies River tortoise remains, (MIS 5)

H. Destructive Sampling:

- Detailed description of how the sample was taken, explain the destructive process in detail;
- Photographs of the object before and after the sampling was done, and of the cast if analysis affected a large part of the object that could be of taxonomic significance (e.g. when thin sectioning);
- Description of the analytical techniques used, including references to other studies using the technique (where possible);
- Discussion on the efficacy of the technique;
- Summary of the results;
- List of publications and theses in connection with this permit (if “in press, in review, submitted or in prep”, indicate the journal it is planned to be published in).

I. Temporary / permanent export:

**Where export permits are issued with a view towards technical destructive analyses conducted at an international institute / facility, the above section for destructive sampling should be included in the export permit report.*

- If the permit is required for an exhibition, a description of the exhibition must be presented. In addition, media publications and reviews of the exhibition should be attached to the report;
- For temporary exports, a travel log should be completed detailing the movements of the object(s), who it was carried by, and upon return of the object to the repository, a letter should be issued by the responsible curator certifying the return of the object in a satisfactory condition;
- For permanent export, a travel log should be completed detailing the movements of the object(s), who it was carried by and a letter certifying that the object(s) was received by the relevant institution or researcher;
- Any accidental damage should be reported.

J. Maintenance:

- A discussion on the conditions which necessitated the need for maintenance (slumped sections, erosion, wall collapse, vegetation growth, graffiti, vandalism, fire, accidental damage, poor curation, veld fire etc);
- What the proposed maintenance entailed in terms of equipment and methods used;
- Period during which the maintenance was conducted (date initiated and date completed);
- Where the maintenance was conducted (for the case of objects, artefacts or fossils);
- List all the people involved with the maintenance;
- Discuss the measures in place (if any) to ensure future protection of the object(s), specimen or site.

K. Filming Permit:

- The footage must be supplied to SAHRA, preferably on DVD (please note that this footage will be kept private);
- A signed letter from the heritage consultant who was on site during the filming must be provided. It should outline what stipulations were set in place, and confirm that the film crew was compliant with their instructions.

L. Phase II mitigation:

- Please note that Phase II mitigations will have their own template and is therefore not covered in this template.