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DEPARTEMENT ANATOMIE SKOOL VIR GENEESKUNDE FAKULTEIT GESONDHEIDSWETENSKAPPE DEPARTMENT OF ANATOMY SCHOOL OF MEDICINE FACULTY OF HEALTH SCIENCES

To whom it may concern

## Permission to export human skeletal material for destructive analysis

I hereby apply for permission to perform destructive analysis on human skeletal material for the purpose of DNA extraction, in terms of the National Heritage Resources Act number 25 of 1999.

The intention is to add to samples that are already under study in a specialized ancient-DNA laboratory in Switzerland. Permission to analyse the aforementioned samples has already been acquired (please find attached, the SAHRA permit as well as ethical clearance from the University of Pretoria) and thus far, DNA has been successfully extracted and some ancestry-specific DNA markers have been amplified and prepared for sequencing. In order to strengthen the statistical weight of this study, it is necessary to add more samples to this collection, this will allow for more inferences to be made about the genetic substructure of Iron Age communities in South Africa. The samples that are intended to be added to this collection consist of skeletal material from two different individuals found in an Early Iron Age site in South Africa, namely Happy Rest, in the Limpopo province. Given the age of these samples, it is not possible to identify any living communities have presented themselves. (Also attached with this motivation is an article about the remains found at Happy Rest.)

Below is a table listing the samples that are intended to be added to this study, their age (where available) their accession numbers as well as their respective sites of origin:

Name of site	Type of bone			
Happy Rest	UP 1	AD 1310 +/- 50 yrs	1	2 teeth
Happy Rest	UP 2	AD 1310 +/- 50 yrs	1	Femur

We intend to export the samples of about 50 grams each to Switzerland, at the University of Zürich, Centre of Evolutionary Medicine, where facilities are available for the specific purpose of ancient DNA extraction and analysis. Ancestry-specific DNA markers will be investigated in order to investigate the changes in genetic diversity in South Africa, from the Iron Age to the present day. The DNA from these samples will be compared to that of anonymous living South African people, whose genetic information is stored on an online database.

I hope that this application will receive due consideration, please contact me should any concerns arise.

Thank you in advance Kind regards

Bodile

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