



THE SOUTH AFRICAN HERITAGE RESOURCES AGENCY

Date: 1 November 2012

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Introducing the South African Heritage Resources Information System (SAHRIS)

SAHRA has developed version 1 of the South African Heritage Resources Information System, commonly known as SAHRIS. Development of the system began in January 2012 using the Drupal Content Management System platform in line with SAHRA's overall adoption of free open source software. Version 1 covers heritage case management and is integrated with the National Inventory of sites and objects. The system has been tested and used by SAHRA's staff since May 2012 and is being rolled out in phases throughout the course of the year.

Through SAHRIS, SAHRA is able to provide a heritage management tool to all heritage bodies and custodians of heritage, as well as to local planning authorities and provincial Heritage Resources Authorities (PHRAs). The system enables the efficient and coordinated management of our heritage, and the maximization of benefit to be attained from our heritage resources by appropriate promotion and use of these resources. SAHRA views the custodians of heritage resources as integral partners in this project and is providing forums for participation in the project.

SAHRIS is the first online government service, worldwide, which allows the public to view and comment on developments in their area on a GIS platform.

At the time of writing, two PHRAs in South Africa, namely Amafa/Heritage KwaZulu Natal and Heritage Free State, have been trained and setup on SAHRIS, with the Eastern and Northern Cape PHRAs following in November 2012.

As of today, the 1st November 2012, SAHRA is pleased to announce that its new online commenting system has been activated. This system is easy to use, transparent and allows any member of the public or registered conservation body to log and track their comments pertaining to heritage issues.

To date, more than 17000 sites of heritage significance have been migrated to SAHRIS. This includes the SAHRA databases of around 3500 declared heritage sites and 3000 shipwrecks,

the entire KwaZulu Natal Museum database of over 6000 archaeological sites and the University of Cape Town's collection of 5400 site recordings. About 30 000 sites on various heritage registers are also about to be uploaded and the information on these sites will be augmented by the digitisation of SAHRA's registry which commences in December this year.

After this lengthy introduction covering sites and heritage case management, you may be wondering what this has to do with objects management and museums. Starting in the mid 2000s a number of audits of state owned collections were conducted. Thousands of objects were recorded, digitally photographed and electronically archived. Most recently, SAHRA completed the full audit of the Genadendal and Walter Sisulu University Anthropology collections using standalone collections management software provided by SAHRA. In Bloemfontein, the National Museum, National Afrikaans Literary Museum and Pacofs are currently engaged as the first users to capture their audits on the online collections management features of SAHRIS. Common to all of these institutions was the lack of an integrated system and a general lack of financial or other capacity.

Besides the migration of all of the standalone data to SAHRIS, a number of important integrations have already occurred. You can now nominate and track the full declaration process related to nationally significant heritage object collections in terms of Section 32 of the National Heritage Resources Act (Act 25 of 1999). The permitting process related to objects destined for permanent or temporary export is also operational. Finally, for archaeologists and palaeontologists, the integration between 'SITE' and 'OBJECTS' excavated or removed from sites is in place.

For data security, SAHRIS has been setup with the Organic Groups module so that each museum controls access to their collections, with private and public modes available for objects they've chosen to be managed in or out of the public domain. While we acknowledge the need to provide security for certain information, we strongly encourage our participants to use SAHRIS in public mode to publicise and share their data as far as possible.

Some of the features already available for collections management on SAHRIS include the following:

1. Online capture of objects related data that has been tested for social history and archaeological collections.
2. Full text searches using the Apache Solr Search Index on SAHRIS. The search engine even indexes uploaded pdf documents.
3. Exposed filter searches by keywords with exposed operator choices.
4. Integrated storage of imagery to the object records - up to 10 megabytes per image (unlimited number of images).
5. Integrated use of over 9500 Chenhall classification terms using the Taxonomy Module.
6. Dynamic parent relationship creation – store your objects by whatever depth of detail you require.
7. Comment on objects online and communicate to other users on SAHRIS via the messaging system.
8. Subscribe to an object's change history.

9. Keep track of updates to object related information via the Revisioning Module and view the actual differences through the Diff Module.
10. Standardise usage of classification terms in South Africa with other expert members for various types of objects through online forums on SAHRIS. Easily merge redundant or incorrect terms in the various taxonomies and allow the creation of new terms which are peer reviewed.
11. Allow viewing of your imagery in the Lightbox Module which prevents downloading of the original files and serves them up in 800x600 pixels (or other resolutions that can be set) over the web.
12. Condition assessments tracking for objects.
13. Case management of objects handled by heritage authorities.

The online accession/movements register will soon be completed which will allow museums to track and manage the movements of objects internally or externally between other institutions. We also aim to complete the necessary fields for literature and natural history collections early next year so that SAHRIS is able to offer a complete management system to museums in South Africa.

The hosting infrastructure is currently held at Mweb's data centre in Parow, Cape Town. Two servers are in operation running the Ubuntu Server Operating System, one hosting Geoserver, an open source mapping server, and the other is the main webserver for SAHRIS.

Currently SAHRA has 2 terabytes of online storage available but this will soon grow to 50 terabytes after the installation of our new network attached storage devices in data centres in Cape Town and Johannesburg. In the coming months and years, SAHRA will continually assess the storage requirements of its partners as it grows the digitised inventory of heritage related information.

To conclude, we would like to highlight the three core approaches adopted in the implementation of SAHRIS.

Firstly, the configuration and use of Drupal for SAHRIS has allowed SAHRA to develop the system using free open source software with little need for coding or reinventing the wheel. It only took 3 months before SAHRIS came into operation at SAHRA with only one full time employee involved in the configuration of Drupal.

Secondly, we believe that SAHRIS will only work if it is used as an **integrated heritage management system**. This will allow the smallest museums to interface with the larger museums and it forces the users into capturing and maintaining their information as a means to an end, whatever that may be.

Finally, we believe this service should be **free of charge** following the successful model pioneered by Wikipedia and others.