#### NEEDS FOR AN INVENTORY OF BELLS IN THE WESTERN CAPE

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#### Introduction

This note provides some background information for the users of the bell inventory that has been developed and resides on the Stellenbosch University digital platform. After explaining how experience was built up in these matters, a number of concrete reasons are offered why such an inventory is a desired product. General information on bells can be found in the recently published book by L. Rombouts [6].

# Experience

One of the authors (JLT), who hails from Flanders, has for a number of years been involved in campanology in his home country. During regular academic visits to Stellenbosch, he became aware of the rich heritage of bells in the Western Cape. His enthusiasm for these bells and their history led to two local colleagues (TdW and PJUvD) joining him in exploring this heritage. Research projects were thus started to locate these bells, especially those of historical value, and to gather as much information as possible on them, through visits and/or documents and other material. One of the first such projects carried out was on the carillon in the Cape Town City Hall. This instrument is the only manually playable carillon on the African Continent. Unfortunately, this carillon of 1925 was largely forgotten. The history of the carillon, an instrument installed by the Taylor Foundry in Loughborough, UK, has been well documented in [1, 2]. The carillon was one of the first instruments worldwide to be conceived as a memorial for the victims of the Great War (1914-1918). After careful inspection by the authors and employees of the Taylor Foundry, it was found that the 39 bells of the carillon are in excellent condition and that only marginal and technical repairs are needed to make the instrument again fully playable. In [1] a full description is given of the instrument and the individual bells and in [2, 5] a summary is given.

With the carillon project as basis, it was decided to carry out a systematic search for and recording of, bells in the Western Cape. Over a period from 2008 onwards, the authors have succeeded in collecting information on over 400 bells. The modus operandi is to visit a bell in its current environment, take pictures of it, measure its physical dimensions (height, diameter and thickness at the sound bow), record its sound and to note all possible decorations and inscriptions on the bell. The sound recordings are analysed to find the bell's five main overtones and these are compared to its intended notes.

The information obtained is stored on the Stellenbosch University Library's digital platform at https://digital.lib.sun.ac.za/10019.2/3975. At this website the information is available to other researchers and to the general public. Over the years a number of questions and comments have been received from people who have consulted the website. The website is also expanded from time to time as more information becomes available.

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# Why is an inventory necessary?

The following are a number of reasons why a bell inventory is useful, even necessary. The focus will be on aspects that typically refer to the South African situation.

#### a) Historical Reasons

Looking at the history of the Western Cape through "bell glasses", one sees a consecutive sequence of bell arrivals. The first influx of bells came with the Dutch settlers, in particular with the ships of the *Verenigde Oost-Indische Compagnie* (VOC). There are a number of bells in Cape Town that carry the logo of the VOC: for example, the Fremi-bell in the Castle of Good Hope, the De Grave bell in the Groote Kerk and the bell in the District Six-museum.

A few decades later, immigrants from North Germany arrived in the Cape and moved to the Cape Flats, a sandy part of the city, where they developed impressive agricultural areas. These settlers were mostly Lutherans that kept close links with their motherland, famous for its production of beautiful church bells. An inflow of bells from German founders necessarily followed, a history of these have been documented in [4].

Then came the period of the occupation of the Cape by the British in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. This gave rise to a tremendous increase in the import of bells from British founders. Naturally, also a large number of bells from an Irish origin were imported. The latter bells were usually intended for Catholic churches.

In Europe, many bells were destroyed or disappeared during consecutive wars like the religious wars of the 16<sup>th</sup> century, the French Revolution and most devastatingly, the Second World War. South Africa has not experienced a similar war where bells have been destroyed. As a result, many of the original bells are still there, although sometimes in a location different to the original. For example, in the Rhynse Kerk of Stellenbosch hangs a very rare bell of 1664, made by Johan Dop, a founder of whom only three more bells are found, all in the Netherlands. The Gruhl-foundry from the former East-Germany is represented by some 10 bells in South-Africa while most bells from this foundry have disappeared in Germany.

Another historic aspect that makes bells in South Africa unique is that prior to, say, 1950, many ships were shipwrecked on voyages between the Western world and Indochina. All the ships carried at least one bell and quite a number of them have been rescued and brought ashore. It is not surprising that many of these bells ended up in private homes, in museums around the country and in church towers in the Overberg district.

#### b) Economic Reasons

Bronze bells are typically made of about 80% copper and 20% tin. Copper has always been a valuable ore. It is therefore clear that bells can be considered as valuable objects. Thieves know about this and therefore, bells become vulnerable. Since there is rather general apathy about bells, one can envisage that it is not difficult to exchange them for money. The number of thefts of bells is already very high and keeps increasing constantly. The fact that bells on wine estates can easily be reached make then extremely vulnerable. Many churches have in recent years also suffered the loss of their bells.

One such pertinent example is the following. In the period between 1980 and 2010, eleven of the fourteen Petit & Edelbrock-bells have disappeared from the city hall of Parow. Repeated requests to the city authorities for an explanation have gone unanswered.

Hopefully a systematic inventory will help in preventing this kind of theft.

# c) Social Reasons

The role of bells in the daily life in the Western Cape is limited but sufficiently important to be documented. Nowadays, the most common use of bells is to announce church services and to invite parishioners to participate. Customs differ between the different religious denominations.

For example, a number of Evangelical Lutheran churches have three bells, ringing the first three notes of a well-known hymn like "A mighty fortress is our God". In Catholic churches, the midday ringing of a bell refers to the Angelus.

Another interesting social aspect is that bells are often used to summon people to pray. The bells do this in accordance with the text that has been forged on it. Almost all original bells in Lutheran [4] and Moravian [3] churches carry religious texts, mostly from psalms.

But bells can also be involved in non-religious activities. In the winelands area of the Western Cape, it was necessary to inform landowners when it was their time to collect water from the official supply. In order to avoid abuse, bells in towers announced who and when the next user could link to the water system.

Needless to say that within the social context, bells have also served as curfew bells. Apart from this last usage, it would be sad if bells would no longer be able to continue their social role, especially within a local community.

# d) Artistic Reasons

This aspect may be less important than the previous ones since, apart from bells on wine estates and public places, most of the bells remain invisible to the community. For those that have had the opportunity to get closer to the bells, the beauty of some of them has been overwhelming. Especially the early Dutch bells and even more the German bells from the 19<sup>th</sup> century are masterpieces of craftsmanship.

It is a pity that quite a number of these bells are (too) easily accessible by pigeons and seagulls, instigating corrosion and spoiling their beauty.

# e) Hereditary Reasons

In the western world, most bells carry the names of their donors, providing some extra dimension to their historic value. While this is hardly true in the Western Cape, a fair number of bells on farms and wine estates are passed on from one generation to the next, hence offering an unexpected hereditary element to the tradition of the owners.

#### f) Scientific Reasons

The possibilities offered by a reliable inventory of bells are many. As one can expect, there are relationships between the physical measurements of a bell and its acoustic properties. For example, the lighter a bell the higher its tune. Search for these underlying relationships and their connection with the founders is a recent and challenging exercise and form the basis of campanometry, the science that deals with scientific aspects of campanology.

But there is more that is actually typical for the Western Cape. In the search for bells it was noted that more than one fourth of them carry no reference to their founder except sometimes the founding year. It is a statistically challenging question to find out which of these bells have been made by the same foundry and to investigate if they are in any way related to the foundries on which sufficient data is available. This kind of research is related to statistical procedures used to find the authors of unsigned documents.

# **Structure of the Inventory**

The inventory covers information on bells collected to date in the Western Province of South Africa. The province is divided into six districts, with each district subdivided into sub-districts. These are numbered and named as follows.

- 1. Cape Town District
  - 1.1 City Centre & Atlantic Seaboard
  - 1.2 Northern Suburbs & Tygerberg
  - 1.3 Southern Suburbs & Peninsula
  - 1.4 Cape Flats
  - 1.5 Helderberg
  - 1.6 Blauuwberg
- 2. Central Karoo District
  - 2.1 Beaufort West
  - 2.2 Laingsburg
  - 2.3 Prince Albert
- 3. Eden District
  - 3.1 Bitou
  - 3.2 George
  - 3.3 Hessequa
  - 3.4 Kannaland
  - 3.5 Knysna
  - 3.6 Mossel Bay
  - 3.7 Oudtshoorn
- 4. Overberg District
  - 4.1 Cape Agulhas
  - 4.2 Overstrand
  - 4.3 Swellendam
  - 4.4 Theewaterskloof
- 5. West Coast District
  - 5.1 Bergrivier
  - 5.2 Cederberg
  - 5.3 Matzikama
  - 5.4 Saldanha Bay
  - 5.5 Swartland
- 6. Winelands District
  - 6.1 Breede Valley
  - 6.2 Drakenstein
  - 6.3 Langeberg
  - 6.4 Stellenbosch
  - 6.5 Witzenberg

Within sub-districts items are given with an identifying label, e.g. a church, public building or farm. For each item three possible entries are given, viz. photos, descriptive text and a table of physical measurements and acoustic measurements. In some cases bells could not be reached to be measured and sound recordings made and in those cases tables will not be included.

# References

- [1] De Wet, T., Teugels, J.L. & Van Deventer, P.J.U., *The Cape Town Carillon*, Grafixit, Stellenbosch, ISBN: 978-0-620-58688-7, 2013.
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- [6] Rombouts, L., Singing Bronze, Leuven University Press, 2014.