Initial explorations in reconstructing the original beacons and boundaries in the Constantia Valley in Cape Town

Daniel THOMAS and Jennifer WHITTAL
University of Cape Town
Aims

- Relocation of the farm CONSTANTIA
- Identification of original beacons and boundaries
- Add spatial survey knowledge and rigour to historical research
- Significant addition to body of work on early settlement and its enduring effect on the city-scape today
- Key contribution is to pair with the genealogical and social historical work produced in a text such as *Constantia and its Neighbours* by historian Helen Robinson
Location

South of Wynberg Hill and Kirstenbosch, East of the Table Mountain chain on the Cape Peninsula. The Constantia Valley takes its name from the early Constantia farm.
• Survey and a diagram 1685
• Subdivided in 1716 into two portions and again in 1716 to create a third portion.
• In the location of the historic wine-producing estate called Groot Constantia.
Data sources

- Dr Helen Robinson: *Constantia and its neighbours*
- *Constantia and Wynberg: a bibliography* created by Wilhelm Wolfgang Wendland
- National Dutch Archives
  - web portal - P.A. Leupe collection maps but too poor for use
Data sources

- Deeds Office Cape
  - Old diagrams embedded in deeds of grant and transfer
  - Erf Register books for property lineage
- The Surveyor-General’s Office: Cape (SGO)
  - Noting sheets – typology of parcels, historic farm boundaries, erf and farm numbers etc.
  - Copies of diagrams and surveyors records
  - Compilation map of Constantia farms displayed in the SGO
Data sources

- South African National Archives and Record Service (NARS)
  - list of maps of greater Cape Town in the cape archives compiled in 1979 by Christopher Merret and held in hard copy by J Whittal provided references
  - very large compilation map 2 x 1.5m
- Department of Rural Development and Land Reform - Chief Directorate: National Geo-spatial Information (CD:NGI): old aerial photography (hard copy only) and old topographical maps (digital)
Methodology

- Process of **evidentiary and methodological triangulation**
- **Georeferencing** - GIS map overlays
- Diagram/deed **tracing**
- Cadastral surveying and **reconstruction**
Methodology - tasks

- Historic map digitized and georeferenced in ArcMap - SGO diagram 11113/1887 Compilation
- Lineage of diagrams and title deeds back through time
- Cadastral layer and Surveyor-General’s Office noting sheets
- Aerial imagery for context
- Cadastral beacon data – office and field
Results – the Constantia Valley

- 45 diagrams sourced, digitized to create a layer of farm boundary shapes
Results – the Constantia Valley

- georeferenced to the current cadastre (red points)
- or where these are lost to the current cadastre the 1887 compilation was used to visually reconstruct the boundaries and beacons (blue points)
Results – the Constantia Valley

- Boundaries that survive today – red
- Boundaries that are extinct - yellow
Results – the Constantia Farm

- Beacons that could be reconstructed (30cm data agreement)
- Beacon with conflicting data - 20 metre variation
Results – the Constantia Farm

- Beacons that could be reconstructed (30cm data agreement)
- Beacon with conflicting data - 20 metre variation
Conclusions

- Land parcel from about 300 years ago reconstructed:
- Successful mixed-method approach:
  - GIS-based overlays for georeferencing
  - SGO noting sheets – critical data and metadata
  - Tracing grants successfully
  - e-diagrams essential
  - Traditional cadastral reconstruction is essential but has not been undertaken yet on this project – this is the next step