*Appendix II: Flaws in the warping of Hochstetter’s field map on Google EarthTM*

Bunn and Nolden (2016, 2017) had access to a table of landmarks and corresponding azimuths from two control points, known as Station 21 and Puai Island. Thus, each landmark was characterized by two angles. In short, these authors applied the following steps:

1. Corrected all the measured angles for the magnetic declination,
2. Identified some of these landmarks in a Google Earth base map,
3. From each of these landmarks on the Google Earth base map, drew two lines for each inverted azimuth angle,
4. Looked at the distinct intersection of each set of lines for each of the two angles to relocate Station 21 and Puai Island on the Google Earth base map itself,
5. Took the *field map* from Hochstetter’s field note book and warped it over the Google Earth base map using only these two control points (i.e., Station 21 and Puai Island). That is, they took this map and translated, rotated and stretched it until Station 21 and Puai Island coincide on both Hochstetter and Google Earth maps, and
6. They identified the position of the Pink and White Terraces on the Hochstetter field map once draped over Google Earth base map to see where they lie on the Google Earth cartographic system.

We consider steps 1-4 above reasonable and justified. However, we believe steps 5 and 6 are fraught with errors especially as they are warping from a short-length baseline. Perhaps what these workers should have done is:

1. From station 21 and Puai Island *on the Google Earth base map,* re-draw the lines using the two azimuths (corrected for the magnetic declination, one from the relocated Station 21 and the other from the relocated Puai Island) to the Pink Terraces. See where these two lines intersect. This is the location of the Pink Terraces on the Google Earth base map, and
2. Repeat the same procedure above for the White Terraces.

Done this way, Bunn and Nolden would have only used angles, which were reasonably accurate from the field measurements made by Hochstetter and not stretched his field map, which is potentially flawed as the concepts of spatial scale and distances were poorly defined in the mid-1800s.