

Figure 17. The map image and locations are distorted which the deformation of the grid illustrates graphically. The detail in the shoreline is historically accurate. If the Herrman map is adjusted or mathematically rectified to the corrected Mercator projection it can be used for locational purposes showing the accuracy of shoreline and cultural features at the time of survey.

The major distortion factors have been calculated by the statistical analysis of the control points and adjustments or correction values have been determined for specific control points (see pages 93 and 94 in the appendix). These locations plotted on a contemporary map can now be accurately located and plotted on the Herrman map.

#### CONCLUSIONS

The positional accuracy aspect of the Herrman map, as an example of a historical source document, has been evaluated by the best-fit method. This mother map is determined to be relatively accurate once rectified for its projection distortions. The historical information mapped on the Herrman map is concluded to be accurately portrayed in respect to the surveying techniques of the time. The methodology employed in this study has contributed to the field of historic cartographic analysis