

Provisional testing using modern skulls and pre-mortem photographs suggest that this may prove to be an interesting alternative to some of the more conventional approaches, and has highlighted areas where more work and improvements are needed to make this a viable technique.

Anthropometry of the Face. A Review of the Traditional Methods of Craniofacial Measurement and their Application to Anthropometry of Photographic Images

Dr. Martin Evison, Lecturer in Forensic and Biological Anthropology, University of Sheffield

This paper reviewed the traditional methods of anthropometry of the face, and highlighted some of the sources of error that routinely occur. Dr. Evison quite properly quoted Leslie Farkas' classic textbook on "Anthropometry of the Head and Face".

He pointed out that anthropometry was a quantitative measure whereas an anthroposcopic study was a visual assessment.

A searchable database of facial images, comparable to that available in DNA profiling, does not yet exist. For such a database to be developed, it would be necessary to select a set of unique facial features for measurement and to be able to describe the dimensions and proportional relationships between them in both two- and three-dimensions, with allowances for known values of statistical variation and measurement error.

The problems with current data collection include poor identification of landmarks, problems with measuring tools and improper measuring techniques. A new approach was proposed in which rapid laser scanning would be able accurately to acquire all the data with minimum subject intervention. This has the advantage of rapid 3D data collection and reduces the significance of measurement error.

The conclusion however was that such a database was likely to offer exclusion only, and could not be used for positive identification.

Does Anthropometry have a Role in Facial Image Comparison?

Professor Peter Vanezis, Regius Professor of Forensic Medicine and Science, University of Glasgow

Professor Vanezis explained that facial anthropometry is used from time to time in facial image comparison cases, and questioned whether the process was one that could be relied on. It was undoubtedly theoretically feasible to compare two images using this approach if the following ideal conditions pertained: