

## BOOK REVIEW

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### *A Review of Studies on Certain Forensic Aspects of Skull Identification and Individualization*

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**REFERENCE:** Sekharan, P. C., Ed., *Studies on Certain Forensic Aspects of Skull Identification and Individualization*, University of Madras, Madras, India, 1989, 85 pp.

This 85-page volume is the published version of P. Chandra Sekharan's doctoral dissertation submitted in 1989 to the University of Madras, Madras, India. He is the founder and president of the Forensic Science Society of India and editor-in-chief of the *Indian Journal of Forensic Sciences*. He is now professor of forensic sciences and director of the Forensic Sciences Department of the government of Tamil Nadu state.

This research is based on the ectocranial suture patterns of 521 adult human skulls and on 8000 skull skiagrams (radiographs). The skulls are of Indians and were collected over a 15-year period by the anatomy departments of the various medical colleges in the state of Tamil Nadu. For purposes of identification, only the normal occipitalis (posterior) view is chosen. This allows the lambdoidal suture, divided into six subdivisions, to be seen through its entire length. The posterior half of the sagittal suture (with two subdivisions) also can be seen.

The skulls are mounted through the foramen magnum and viewed by two separate video cameras. A video vision mixer, a synchronizer and three video monitors allow the images of the skulls to be compared. The sutural patterns or configurations are divided into ten types. The author finds that ectocranial suture patterns are an effective method of human identification, are individualistic, and are better than fingerprints since they cannot be altered or destroyed as is the case with fingerprints. He proposed that an anteroposterior skull X-ray be made of all individuals as "an additional prescription of skull radiograph could only be to their advantage" (p. 71). Dr. Sekharan states, on page 30:

For all practical purposes there would exist no two individuals with perfectly identical suture patterns. It can therefore be hypothesized that no two skulls can ever have a similar pattern.

Most of the forensic scientists in the United States, and in particular the forensic anthropologists, are aware that cranial suture patterns are a good means of positive identification. Although this volume does not mention the pattern of the middle meningeal arteries (seen in the lateral skull X-ray), they too are an excellent means of positive identification. Sekharan has documented with a larger sample what has been reported earlier in the literature.

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I was concerned that, of the 82 references, the most recent was published in 1985. Only 4 references published between 1980 and 1985 are included, and 41, or half, of the cited references were written before 1940. Doctoral candidates in the United States are required to review the most recent literature, and this study lacks those references of the past decade. Perhaps, the work was completed earlier and no update of references was done.

This volume will add little to the background of practicing forensic scientists and is best suited for library or research comparison. The author does not discuss the problems of observing cranial suture patterns in most of the cranial X-rays I have seen. The exposures used in the United States seem to obliterate the sutural patterns in many instances. This book does document the individuality of cranial sutures and their potential use in identification.