

## CHAPTER 3

### ANTHROPOLOGY

#### Doctoral Theses

008. DAS (Amrita Poonam)  
**Prediction of Stature Through Different Body Measurements Among Kshatriyas of Orissa.**  
Supervisor : Prof. Surinder Nath  
Th 16577

#### *Abstract*

Concludes that the multiplication factors formulated for Kshatriya females of Orissa exhibit variation from that formulated for other population groups of India. Similarly, the linear regression equations computed for prediction of stature also show difference in the values of intercept and slope in comparison to the equations already available on other living population groups of India. Hence, this confirms the assumption that these means of stature estimation (multiplication factors and regression equations) are population as well as sex specific, and thus they should not be used interchangeably. Among the new measurements, palm length and mid-finger lengths exhibit relatively high value of correlation (above 0.50) with stature, while the four head and face measurements exhibit a value of correlation as low as 0.25 (TFH) to 0.17 (HEB). This clearly suggests that these head and face measurements may be used for estimation of stature only under the situation when all other body parts are not available for this purpose.

#### *Contents*

1. Introduction. 2. Review of literature. 3. Material and methods. 4. Results and discussion. 5. Comparative analysis. 6. Assessment of reliability of multiplication factors and regression equations. 7. Summary and conclusion. Bibliography.

009. GUPTA (Vipin)  
**Disease Association Study of Some Polymorphic Molecular Markers Related to Diabetes Type II.**  
Supervisors : Prof. M. P. Sachdeva and Dr. Rajesh Khadgawat  
Th 16816

*Abstract*

Validates the candidate genes (already identified through “candidate gene” and “genome-wide” association approach) related to type 2 diabetes in an endogamous population of India.

*Contents*

1. Introduction. 2. Genetics of type-2 diabetes mellitus. 3. Review of literature. 4. Materials and methods. 5. Results. 6. Discussion. 7. Conclusions and significance of the study. Bibliography and Appendices.

010. HARPREET KAUR  
**Study on the Demographic and Genomic Diversity of the Damor and Naikda Tribes of Rajasthan.**  
 Supervisor : Prof. M. P. Sachdeva  
Th 16817

*Abstract*

The two selected populations, Naikdas and Damors, though linguistically similar (Indo-European speakers) are found to be demographically and genetically distinct, which is also expected from their different ancestral origins followed by isolation. In spite of being better placed with respect to most of the demographic variables (literacy rate, occupational status, socio-economic conditions, fertility); the Naikdas have high prenatal mortality, that too in the age cohort of most effective reproductive period (20-24 years), which may be reflecting the effect of their genetic background showing lower average heterozygosities with respect to 10 marks and also higher inbreeding coefficient at most of the loci.

*Contents*

1. Introduction. 2. Research area and people. 3. The research methods. 4. Demographic profile of Damors and Naikdas of Rajasthan. 5. Genetic diversity/affinity among Damors and Naikdas of Rajasthan. 6. Summary and conclusions. References and Annexures.

011. KANUDEEP KAUR  
**Prediction of Bone Length from Bone Fragments.**  
 Supervisor : Prof. Surinder Nath  
Th 16579

*Abstract*

Concludes that despite high correlation of certain bone dimensions with respective bone length, a reliable estimate of bone length could be obtained through a fragmentary dimension, which exhibits the least value of Standard Error of Estimate. The study differs from the earlier studies as it incorporates much more number of fragmentary dimensions than the ones considered by the earlier researchers, as well as certain measurements which have been used for the first time. It is also evident that among the new measurements, head diameters of humerus and femur turns out to be more reliable indicators of bone lengths than the other measurements. Among the new fragmentary measurements incorporated three head and neck measurements i.e. TDH, VDH, and CN of femur and the following two dimensions namely CH and TDH of humerus turns to be quite important as they exhibits a relatively high correlation with bone length as well as they reveal fairly low value of SEE as compared to other fragmentary measurements of various bones.

*Contents*

1. Introduction to Forensic Anthropology. 2. Review of literature. 3. Material and methods. 4. Results and discussion. 5. Summary and conclusion. 6. Bibliography.
012. MAURYA (Nutan)  
**Anthropological Study of Prayag : Pilgrims, Religious Practices and Environmental Pollution at a Sacred Place.**  
 Supervisor : Prof. Subhandra Mitra Channa  
Th 16578

*Abstract*

Addresses the problem of river pollution at two levels - first, perennial inflow of nalas (untreated sewage) of the city in general, and second due to the ritual performances of pilgrims and devotees during Magha in particular. In addition to it, what are the religious observances been devised by the pilgrims in response to the environmental crisis. The pollution problem of sacred confluence is on the one hand related to behaviour of the stakeholders who are devotees also and on the other successive urbanisation and inefficient management strategies of the governmental bodies on state and local level. Though the government has launched a lot of new programmes of sustainable urban developments and water quality management plans for

the rivers (JN, RUM, JICA, GAP-I & II etc) but their efficiency is yet have to be checked as they have not taken in account the participation of common people in their programs.

*Contents*

1. Introduction. 2. Conceptual framework and methodology. 3. Field work experience and constrains in the field. 4. Prayag- An introduction to area and people. 5. Sacred complex of prayag. 6. Cosmology, ritual and ecology. 7. Pollution : Agency, action and the reality. 8. Discussion and conclusion. Appendix and Bibliography.

013. NELI (Daili)  
**Adaptation and Appropriation of Nature : An Ecological Study of the Mao Naga, Manipur.**  
 Supervisor : Dr. Indrani Chattopadhyaya  
Th 16582

*Abstract*

Examines how the Mao Naga community appropriates the nature and in turn adapt to their habitat. aAlso examine the culture-environment relationship, for it is important to study how culture has a impat on environment and how the environment shapes the culture. No doubt changes have taken place in the Mao Naga socio-culture life in various ways. However, the Mao Nagas still maintain their socio-cultural life to a great extent in accordance with their traditional institutions. The changes that have occurred in Mao Naga socio-cultural life is of modifying ones to suit the modern ones. People thought that mao Nayas has drastically nature and not total change. These changes are modifying changed due to many factors like Christianity, Education, Global economic, etc. However, traditional cultural traits continue to exist in the present in somewhat different forms. It reflects that cultures adapt and readapt to the changing social environment and this ongoing process ensures the survival of any society.

*Contents*

1. Introduction. 2. Theoretical framework. 3. Methodology. 4. Ethnographic profile of the study area and people. 5. Land use system and ownership. 6. Material culture and its relations to nature. 7. Beliefs system and social taboo. 8. Conclusion. Bibliography.

014. SANTHI (A)  
**Study of Population and Gender Differences in Body Size, Body Shape, Body Physique and Physiological Measurements Malayali and Malakkuravan Tribes of Tamil Nadu.**  
 Supervisor : Prof. S. L. Malik  
Th 16576

*Abstract*

Reveals that in general both Malayali and Malakkuravam males have broader shoulders, narrow pelvic, this seems to be the reason for the masculine body form. Generally, Malayali and Malakkuravan males have higher systolic blood pressure than their females. Malayali females have higher pulse rate, while Malakkuravan females have higher breath holding time than their males. Biological variability in Body size, body shape, body physique and physiological measurements were the useful indicators in the prediction of health condition of the tribes and their environment. Imballanced nutritional intake, physiology, energy expenditure reflects on the somatotype of a person. Needless to mention here that the difficult terrain, inaccessible nature of Jawadhi hills makes Malayali males and females fall in the category of normal and mild thinness, in terms of distribution of body mass index. Study concludes that longer appendages of Malayali and Malakkuravan tribes are well suited to the dry sub-humid climate of Tamil Nadu.

*Contents*

1. Introduction. 2. Material and methods. 3. Results and discussion. 4. Summary and conclusion. Bibliography.

015. SINGH (Sarita)  
**Reconstruction of Stature Using Different Body Dimensions.**  
 Supervisor : Prof. Surinder Nath  
Th 16580

*Abstract*

Concludes that as hypothesized, the Rajputs of Jaunpur show marked sex differences in all their body measurement like other population groups. Considering these the multiplication factors formulated for Rajputs (Males and Females) also shows the variation from that of the multiplication factors reported on other population groups of India. The linear and multiple regression equations formulated for estimation of stature also

exhibits variation in the values of intercept and slope as compared to the equations available on other Indian Populations. This confirms the presumptions that these means of stature estimation, i.e., multiplication factors, linear and multiple regression equation are not only population specific but also sex specific and thus they should not be used interchangeably.

*Contents*

1. Introduction. 2. Stature estimation - Concept and need. 3. Review of literature. 4. Material and methods. 5. Results and analysis. 6. Assessment of validity of multiplication factors, linear and multiple regression equations. 7. Comparative analysis. 8. Summary and conclusion. Bibliography.

016. VATS (Yogesh)  
**Cheilosopic Study Among Indian Populations.**  
 Supervisor : Prof. (Dr.) A. K. Kapoor  
Th 16581

*Abstract*

Made an attempt where, personal identification is shown by means of lip prints. Concludes that lip prints holds some hereditary value yet these are considered to be individualistic each possessing their own unique characteristics. Further, the Somatometric and Somatoscopic dimensions have no influence on the occurrence of lip print patterns on the lips of males as well as females has shown similar results i.e. sex has no influence on the occurrence of lip print patterns, subjected to more research in this area. The patterns present on the lips of offspring resemble to some extent with that of their parents but the significant role, whether of father or mother, cannot be said with cretainty, The classification and observation of patterns in the population, and the investigation of heredity of the lip print have resulted in some useful data.

*Contents*

1. Introduction. 2. Area and people. 3. Materials and methods. 4. Results. 5. Discussions. 6. Summary, conclusion and suggestions. Bibliography.

## M.Phil Dissertations

017. ANU BHAWANA  
**Religious Practices of a Migrant Brahmin Community in Delhi : A Case Study of Maithil Brahmin from Bihar.**  
Supervisor : Prof. Vinay Kumar Srivastava
018. GOSWAMI (Savita)  
**Study on Growth in Different Body Measurements Among Rajput Females of East Delhi.**  
Supervisor : Prof. Surinder Nath
019. KABIR KRISHNA  
**Parenting Autistic Children : A Psycho-Anthropological Perspective.**  
Supervisor : Prof. P C Joshi
020. RITA KUMARI  
**Comparative Study of Growth Patterns and Maturational Sequence in Different Body Measurements Among Garhwali Rajputs of Burari, Delhi.**  
Supervisor : Prof. Surinder Nath
021. URVASHI  
**Sex differences in Growth Patterns and Maturational Trend among Prajapatis of District Hamirpur Bundelkhand, U.P.**  
Supervisor : Prof. Surinder Nath