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THE ROLE OF THE STATE IN THE DEVELOPMENT OF ANTHROPOLOGY IN INDIA: EXAMPLES FROM THE NORTH-WEST

Introduction

Anthropology has had a fairly good beginning. It began by being a handmaiden of the colonial powers who supported it for their own vested interests, that of maintaining their powers. Anthropology served to inform these colonial masters of the conditions of the citizens. This was supposedly the dark underbelly of Anthropology and its colonial beginnings.

However, a detailed study of the lives of Indian anthropologists belies this assumption. At least some of the researches that anthropologists conducted went to the detailed intelligence gathering of the British administration. However, anthropologists did much more. They collected information not only about the basic culture of different communities in India, they also collected a fair picture of the dissatisfaction of the people regarding their rulers.

Specific dissatisfactions related to land, taxation and some other issues were often aired by anthropologists through official letters. These letters were given due consideration by the British and appropriate action was taken by them to ensure that the people remained satisfied.

In other words, anthropology had its own secret agenda even when it was being aided by the colonial powers. This secret agenda included its own growth and development and the collection of ethnographical and ethnological information for its own. This is an aspect that has often been ignored by scholars of the colonial period.

Anthropology thus pulled itself up by its own bootstraps to become an academic discipline in the universities of India as a legitimate study of human beings, rather than an appendage of the colonial government. The individual anthropologists utilised the mandate for understanding societies very broadly in order to frame their own perspective for creating the knowledge that was to be the basis for future anthropological studies in India.

This enterprise in the colonial period is not to be belittled. It took many years of intensive work to develop a basic idea of many of the communities of India. Some of these works were so detailed that they became monographs in their own right. Some were written briefly but were so detailed and accurate that they are still cited today. Till now such an enterprise was never again so successfully undertaken. The People of India project could not equal the effort of so many years ago under such difficult conditions. With these works as a background uniquely Indian issues began to be teased out by Indian anthropologists so that they could be better understood.

This work may only be understood in the context of the past by unravelling the pathways by which different Departments in the North-Western part of India have begun and developed. This pathway may be understood then by looking at how the state was involved in this process of growth of Anthropology.

Beginnings and Disciplinary Developments: An Overview of Delhi

The idea of a Department of Anthropology under the Faculty of Science in Delhi was initiated by Sir Maurice Gwyer, the Vice-Chancellor of Delhi University in 1947. At that time, the British had shifted their capital in India from Calcutta to Delhi. As a result, the focus of a Department of Anthropology had shifted from Calcutta. Sir Maurice picked up on this issue. He was interested in starting a Department of Anthropology at Delhi University. In his sights was a man who had been taught by Prof. Panchanan Mitra and Prof. L.K. Ananthakrishna Iyer at Calcutta University, where Anthropology may first said to have begun in India as an academic discipline. Prafulla Chandra Biswas was born in Calcutta (later called Kolkata) in 1903, and had matriculated in 1921 from a south suburban school. He completed his Ph.D. after completing his Masters in Calcutta University from Berlin University, Germany under the famous geneticist Eugene Fischer. He had gone there after being awarded a von Humboldt Fellowship in 1933. Under this able guidance he produced a very important work called 'Uber Hand und Fingerleisten von Indern' (On Palm and Fingerprints of Indians), earning a doctorate from that University in 1936. This was the first step towards outlining the morphogenetic variability of different races of the world.

On returning from Germany, Dr. Biswas joined the Department of Anthropology at Calcutta University, where he taught for eleven years. He also conducted field surveys in the North-East, Bengal and Bihar in India.

Dr. P.C. Biswas was then persuaded by Sir Maurice Gwyer and became the founder Head of Anthropology and Reader at the University of Delhi in 1947 and continued to teach there for 21 years, becoming a Professor in 1959, retiring in 1968 and dying in 1984. By this time he had supervised 20 Ph.D.s out of which three had joined the Department by the time that he had retired.

A list of these early Ph.D.s show how effective this process was since the next level of Anthropologists recruited into various universities and research institutes included these very people.

Of the people mentioned in the tabulated format given a majority became faculty members of Universities, especially in the North-Western zone. Dr. Inder Pal Singh Monga, Dr. Surendra Chandra Tiwari and Dr. Jai Dayal Mehra joined the Department at Delhi immediately followed soon after by Dr. Prem Kumar Datta.

Prof. I.P. Singh was a physical anthropologist but it was a paper on the Sikhs of Punjab he wrote in *Indian Anthropologist* which caught the attention of many anthropologists and non-anthropologists alike. The information that he collated came to be of enduring relevance. As a result, Prof. Singh in the last few years conducted a restudy of the village to understand the changes that had occurred in from that period to the present. This data was then presented at various conferences and seminars by him.

Prof. S.C. Tiwari was also a physical anthropologist who was well known for his study of bones, especially those found at various famous archaeological sites from India. Prof. J.D. Mehra was a social anthropologist who was known in his classes for the breadth of knowledge of a savant. This was what made his classes something to be treasured. One could often hear the basic contributions of the major philosophers in the same breath as the works of the early anthropologists. His classes often made people feel alive and many would continue to do anthropology because of him.

Prof. Datta was also a well-known figure. He was a physical anthropologist who gained a good following among his students, whom he would invite home for lunches and dinners with his family. Prof. Tiwari, Prof. Mehra and Prof. Datta had all donated many books to the Department for its collection.

Dr. Abhimanyu Sharma became a very big and dominant figure in physical anthropology in the Department. He taught many including Prof. P.K. Ghosh and Prof. Aloke K. Kalla, among others, who joined the Department later. Through them, his extensive notes on human evolution and races were to be used by generations of students after him.

Dr. Swadesh Anand and Prof. P. K. Seth, both became faculty in the Department as physical anthropologists. They eventually married. Prof. P.K. Seth was well known as a primatologist with many major projects under his belt. He and Prof. Anand (Seth) both also started working on molecular genetics/biochemical genetics. They published many research papers in this arena of work, establishing their own laboratory to do so.

Prof. D.K. Bhattacharya was to work in many different locations and directions. He was very idealistic and wished to join Vinoba Bhave in his

massive 'Bhoodan' and 'Gramdan' movements. His involvement eventually put a dent in his father's ambitions for a great academic record in his school examinations. As a result he was eventually able to join late in Anthropology. After his Ph.D. in physical anthropology, he joined Lucknow University where, as soon as he had reached, he was ordered by Prof. D.N. Majumdar to keep his luggage in his room and go and start teaching. After this period, he then went on to join Delhi University as faculty, where he popularised generations with his love for archaeology, holistic studies in Anthropology and a passionate dedication to teaching students very well. This dedication was maintained even now as he continues to teach students at a variety of invited lectures and in formal environments at the Institute of Archaeology or Amity University, even today.

Other physical anthropologists who entered included Prof. H.K. Kumbhani and Prof. M.K. Bhasin as well as Prof. Raghbir Singh. Later entrants included Prof. S. Nath, Prof. S.L. Malik, Prof. P.K. Ghosh, Prof. Satwanti and Prof. A.K. Kapoor. The social anthropologists who entered at this point of time included Prof. V.C. Channa, Prof. J.S. Bhandari and Prof. Subhadra Channa. Thus, a majority of the Department consisted of Physical Anthropologists while the smaller number of Social Anthropologists taught their subject as 'Group-B'.

Prof. Jagmohan S. Bhandari was born on 5 July 1937. He completed his Ph.D. from Ranchi University under Prof. L.P. Vidyarthi on Family and Religious Change among the Mishing (Miri) of the Majuli area in Upper Assam. After completing his M.A. in Anthropology from Lucknow University in 1957, he taught as a Lecturer at the Department of Anthropology at Lucknow University for a time before he was appointed as a Lecturer at the Department of Anthropology at Delhi in 1963. He taught tribal transformation, kinship, family and marriage as well as contemporary theories. His research interests varied from the polyandrous people of Chakrata and Jaunsar-Bawar region of the then Uttar Pradesh (with Prof. D.N. Majumdar) to the social organization of the Korwa of Mirzapur (U.P.), caste studies, tribal contacts with non-tribals in Rajasthan, as well as a whole range of studies conducted by his students from the North-East of India. In fact, he was attracted to the work and life of the people of the North-East and would talk to his students for hours about this area. From 1990-1993, he was the Head of the Department, President of the Indian Anthropological Association, editor of the journal of the Association and also a member of the Board of editors of the *Eastern Anthropologist*. He died suddenly on his way to Bombay (now Mumbai) on the night of 5 June 2001.

Dr. Channa was born on 5 May 1946 to a Delhi's affluent family which had set up the Channa market in Karol Bagh. Having studied at Mayo College (Ajmer), he ended up graduating from St. Stephen's College in Delhi with Physics, Chemistry and Mathematics before joining the Department of

Anthropology from where he completed his Masters in 1967. Where every anthropologist of any repute was working in rural areas, he worked on this Vaishya caste group in the Bazar Sita Ram area of Old Delhi. Prof. Channa joined the Department of Anthropology at Delhi in 1984 at the age of thirty eight. He taught classes on the 'Ethnic and Cultural Diversity of India', 'Cultural Ecology' and 'Psychological Anthropology'. In the last of these papers he was successful in creating the one and only laboratory on the subject. His research scholars worked on industrial anthropology, work, leisure and labour as well as on the Anthropology of Dance. When he fell ill, these papers were taught by Prof. Srivastava and then by Prof. S.M. Channa, Prof. Joshi and Dr. Mitra. He also wrote a very important book on the tenets of Hinduism, something which he used to teach with much ethnographic detail and passion in class. This was consulted by many scholars all over the world. Prof. V.C. Channa died on 26 July 2013 (Srivastava, 2013).

Dr. S.K. Basu, after many different projects, went on to head a Department at the National Institute of Health and Family Welfare (NIHFW) in Delhi. Prof. Gautam Kshatriya had worked with him in many of the projects before he eventually joined the Department in Delhi.

Prof. P. Dash Sharma joined the Department of Anthropology at Ranchi University from where he retired only recently. He is the founder editor of *South Asian Anthropologist*, a premier indexed journal of Anthropology.

Prof. R.S. Mann, Dr. S. Roy and Dr. Rizvi, all joined the Anthropological Survey of India. Prof. R.S. Mann went on to become a Director before joining back into the Department of Anthropology at Delhi from where he retired.

Prof. R.S. Mann was born on 15 November 1936 in village Alipur within Delhi. R.S. Mann and I.S. Marwah did their Masters from the Department of Anthropology at Delhi as the only two students who had opted for Physical Anthropology that year. Just before he was to retire from the Survey, he joined the Department of Anthropology at Delhi as a Professor. He was a soft-spoken person with a ready smile for his students who had a huge interest and knowledge of the various communities and tribes of India. This was mainly through his fieldwork assiduously conducted in some of most difficult areas of India including the Rupshu area of Ladakh where he was one of the first anthropologists who had visited the region. He was also known to prepare structured and copious notes from his readings of various communities. He would usually finish such books in one sitting through an evening of reading. His notes had the detailed reference at the top followed by the main objectives, methodology, area of work, major findings and recommendations and references put together into a brief two typed pages or a little longer. Such notes were alphabetically arranged and kept. Further, he had done many projects with the Survey in areas like the Ladakh, North Sentinel Islands, Rajasthan and Gujarat as well as on the Hakkipikkis of Mysore. A large number

of books as well as textbooks were the result of this lifetime endeavours. Alipur village, where he was born, was where he built his house and in which he eventually died on 1 September 2013.

Prof. I.S. Marwah taught civil servants about learning from the rural areas at the Officers' Training Course (OTC) at Udaipur, Rajasthan. He then joined the Delhi School of Economics briefly. Later he joined the Department of Anthropology with the knowledge of the many areas and communities he had worked on, which made him a boon for the students he taught. He taught students on Development and Economic Anthropology as well as on Social and Cultural Change. His work on the Tabligh Movement among the Meos became a long-term classic and was reprinted in different places after its first publication in *Indian Anthropologist*.

The 'Peripheral' Anthropologies of the North-west

Chandigarh

Shiv Raj Kumar Chopra was born on 8 October 1931 in Ludhiana, Punjab. After completing his Masters in Zoology in 1953, he went to Zurich to complete his Ph.D. on cranial suture closure in Old World and New World monkeys, which he completed by 1955. This comparative data was used by many as a part of some textbooks. He also used this to get a grant from the Wenner-Gren Foundation for Anthropological Research, which he used to create a Chopra's Pelvimeter by 1958. This instrument singularly made the measuring of the pelvic angle and torsion easier. This was compared with the innominate bone in Australopithecines to understand the problem of their erect posture. This invention was eventually manufactured by M/s Blundell and Gascolgne, Birmingham (UK) and M/s Una and Co., Delhi. This work was the background that led him to come back to India to set up a Department of Anthropology at Panjab University in Chandigarh in 1960, hiving it from the parent Department of Zoology. Prof. Chopra chaired this Department from 1960 to 1981.

Prof. V. Bhalla joined the Department of Anthropology at Panjab University, Chandigarh as the first batch of teachers in a new Department initiated by Prof. S.R.K. Chopra. He retired from there and continued for some time as an emeritus Professor. He was later joined by two physical anthropologists Prof. Surya Prakash, Prof. P.K. Parmar and one social anthropologist Mr. Divya Darshi Kapoor. Both Prof. Prakash and Mr. Kapoor were from Delhi. Much later, they were joined by two more social anthropologists from Delhi University – Prof. Shalina Mehta and Prof. Bijon Gopal Banerjee.

Right from the beginning Prof. S.R.K. Chopra turned the Department into a major centre for research on hominoid and other fossils from the Siwalik

region. He as well the other researchers in the Department kept on churning out new research on fossils from the area one after the other. The work attracted scholars from all over the world as well as funds. For instance, funds from Kiel University in collaboration with the German Research Council (Deutsche Forschungs-Gemeinschaft) helped him to work on biological surveys of select Himalayan populations. This was extended to Lahaul and Spiti regions with funds from the Punjab Government in 1964-65. He continued this work with funds from CSIR till 1968. The INSA funded him for further research in this area from 1972-74. The high profile Cambridge Himalayan High Altitude Research Expedition in 1979 was also conducted in association with him. In fact, it became the only Department of Anthropology in India to have this kind of expertise in palaeoanthropology. Many other organisations continued to also fund him for living as well as fossil primates and hominoids. Fossils like *Gigantopithecus bilaspurensis*, *Pliopithecus krishnaini* (in the Miocene beds) and *Sivasimia chinjiensis* (in the Chinjis) were found in this period. Today, the controversies and major issues spoken by many of the contemporary workers in the regions had their origins in the early finds by this Department, especially those involving Dryopithecine fauna. He often worked in collaboration with other laboratories around the world.

Among the 19 Ph.D.s supervised by Prof. Chopra (see Table 2) included those on growth and development, ecology and environment, high altitude adaptation studies, etc. In fact, the Wenner-Gren awarded him twice – once in 1955-56 and again in 1966-67. He was also repeatedly invited abroad for a variety of talks and lectures, as well as a Visiting Professor. Many awards and fellowships had also been granted to him, both at the National as well as at the International level. He also became an examiner at various National and International universities. He was selected often because he was fluent in both English and German. He held many important academic as well as administrative positions also. From 1983 to 1986, he was the Pro-Vice-chancellor of Patiala University. From 1986 to 1989 he was the Vice-Chancellor of Kurukshetra University at Kurukshetra in Haryana.

Prof. Chopra ruled over the Department with an iron hand, with strict discipline, order, system and even the topics of dissertations being personally selected and allowed by him. This enabled him to focus on certain areas of research that became well-developed and the Department came to be known internationally for these researches. Its unique teaching syllabus also reflects this expertise. In fact, the Department has enabled other Anthropologists in India to be trained in this area of expertise by holding occasional workshops. At the time, under Prof. Chopra, the Department was well-known figure at all gatherings of palaeo-anthropologists. He ordered fieldwork for long periods in inhospitable areas and created infrastructure in the Department to sustain this kind of work. This included all-weather tents, sleeping bags, tools, cooking implements, field boots, among other things.

Under the tutelage of Prof. Chopra, the Department went from strength to strength. After his death, while some work in palaeo-anthropology continued, the Department became prominent in other areas of Physical Anthropology also, like human growth and development, sero-genetic studies and genetic epidemiology, twin studies, medical anthropology, tribal studies, dental anthropology, studies on religion, AIDS research, symbolism, forensic studies, ecological and environmental anthropology, business anthropology, among others. It became a well-known Department in the northern part of India for its work in biology. It grew in stature over the years, going through three phases of the UGC Special Assistance Programmes from 1988 to 2009, thus becoming a Centre for Advanced Study from 2010 onwards. The ASIHSS programme (2005-2010) and the DST-FIST Programme (current) have also helped to develop its infrastructural capabilities. Fieldwork has also been conducted in Prehistoric Archaeology. This had been initiated by Dr. Baldev Singh (who joined the Department in 1961) and Dr. G.C. Majumdar earlier. Laboratories for all of these areas of research have been developed gradually, especially in serology, osteology, biochemical studies, dermatoglyphics, radiology, photography as well as one for computers. A well-developed Museum of Man was developed through research, using life size models and other methods to create a panorama that has been used for teaching, research and outreach activities for schools and colleges and the general public for a long time.

Patiala

Prof. L.S. Sidhu passed out of the Department of Anthropology at Chandigarh in 1964, working with Dr. Deutz of Paris on growth. Prof. Chopra wrote to Prof. Harrison at Oxford University and Dr. Sidhu was accepted for a Ph.D. there under Prof. J.E.M. Tanner. Prof. Chopra was then in Kiel University in 1966 trying to put together a project on high-altitude adaptation in the Himalayas with Dr. Sidhu which eventually was funded in 1967. For this project, Prof. Chopra required the assistance of Dr. Sidhu and so he returned back to work in the Kullu and Manali regions of Himachal Pradesh. D.D. Kapoor had also been recruited for the project where they had visited Lahaul-Spiti, especially Kaza during an earlier project in 1964. In 1970, the Department of Human Biology at Patiala had some posts and after some misgivings, Prof. Chopra asked him to apply there. This was how the Department of Human Biology was initiated at Patiala in 1970. Prof. I.J.S. Bansal, an expert on Human Genetics, was also present at Patiala with him. Prof. Sidhu recalls that he started teaching a favourite lecture of Prof. Chopra's called 'Ontogeny and Phylogeny'.

After four decades of work, it also became known for some traditional areas of research in Physical Anthropology. Later, Dr. Lakhbir Singh, Dr. D.P. Bhatnagar, Dr. Praveen Singhal, Dr. S.P. Singh, Dr. S.M.S. Chahal, Dr. Pushpa Singhal and Dr. Promila Mehta joined the Department.

Dr. Devinder Paul Bhatnagar, born on 5 October 1946 in Patiala, initially taught in the Khalsa College, Patiala after completing his post-graduation from the Department of Anthropology, Panjab University. He also taught at the Government Medical College Patiala from 1967-1969. He then received the post of Assistant Research Officer from ICMR at the PGIMER, Chandigarh where he spent one year. He then did a second post-graduation at the Department of Human Biology at Punjabi University before he joined the faculty there in 1977. He was then the first to submit his doctorate in 1977 under Padma Shree Dr. N.D. Aggarwal (a famous orthopaedic surgeon) and Prof. L.S. Sidhu. This work led to a new way of diagnosing CTEV at an early stage. He taught Human Growth as well as Research Methodology at the post-graduate level. He was awarded the prestigious National Associate award by the UGC. He has a soft-spoken, helpful attitude that endeared him to his students as well as to many of his colleagues. He has published 90 research papers, with 17 being in International journals and 17 books with 7 being edited volumes. He has supervised 12 Ph.D.s, 8 M.D./M.S. and 58 M.Sc. students. Many are today well-placed. He has organised 29 conferences at the national and international level. He has been a member of the Indian Association of Sports Science and Physical Education and has been editing their official *Journal of Sports Science and Physical Education*. He has been the Director (Research and Development) of Punjabi University, Patiala in 2001 and his leadership of the Department of Human Biology in 1992-1997 gave him much experience. At present he has been working on at least two important manuscripts for publication.

Prof. S.P. Singh has published 119 research papers in national and international journals. He has authored and edited 8 books. He has guided about 21 Ph.D.s. He stood first in the University in M.Sc. Human Biology in 1973 after which from June 1974 to March 1978 he was UGC-JRF and then SRF under the Home Ministry (Tribal Development) from April 1978 to June 1980. He was a post-doctoral fellow from July 1980 to December 1980. From July 2010 to June 2010 he was additional Dean, Research, Punjabi University and Dean, Faculty of life Sciences from July 2010 to June 2011. He was Member, Academic Council, PUP and Member of the Senate, PUP. He was the Head of the Department of Human Biology from 2000 to 2003 and Member of the Academic Council, Punjabi University from 2000 to 2003. He has also been the founder-editor of Human Biology Review since its inception.

Prof. S.M.S. Chahal did his graduation from Delhi University in 1974 and his post-graduation from the Anthropology Department at University of Delhi in 1976. After this, he went to the University of Newcastle-Upon-Tyne for his Ph.D. through a Commonwealth Scholarship in 1978 which he completed in 1981 on Human Genetics. He joined the University of Delhi as a Pool Officer in 1982-83, continued as a Lecturer in 1983 until, in the same year, he joined as a Lecturer at the Department of Human Biology in Patiala till 1988. He

then became UGC Research Scientist 'B' there from 1988 till 1993. In 1995 he became a Reader and later, in 2003, a Professor in the Department. By 2006, he had 66 papers to his credit of which 44 were in International journals. He has written two books, one of which was an edited volume.

Prof. Promila Mehta was born on 8 December 1953. She completed her B.Sc. from Punjabi University in 1972, her M.Sc. from the same University in 1974, her M.Phil. in 1982 and her Ph.D. in 1985. Not satisfied with this, she also completed her B.Ed. and M.Ed. She became a Lecturer at the Department of Human Biology, Punjabi University in 1984, a Reader in 1998 and a Professor in 2006. She has 65 publications with 21 in International journals and one book. She has supervised 5 Ph.D. scholars.

Prof. Pushpa Singal was born on 10 June 1950. She completed her M.Sc. in Human Biology from Punjabi University in 1972 and a Ph.D. in 1980. She joined as a Research Assistant in 1982, then as a Lecturer in 1985 and a Reader in 1998. She has 71 publications of which 15 are international. She has 2 edited books, and has guided 10 research scholars for Ph.D.

Dr. Satbir Kaur was born on 1 April 1958. In 1980 she completed her M.Sc. from the Department of Human Biology, Punjabi University, her M.Phil. in 1984 and her Ph.D. in 1986. For a time she was a Lecturer before she joined as an R.A. in the same Department in 1987, and in 1989 she joined as a Lecturer. In 1998 she was promoted to Reader. She has guided 3 Ph.D. research scholars, two M.D. students and 30 M.Sc. students. She has published about 17 research papers.

Like Delhi, the department has an M.Phil. programme, unlike Chandigarh. For teaching purposes, there is also a museum with fossils, casts and other items related to human biology. In 1975, a 'Human Antigen Research Programme' was begun under P.K. Shrivastava with an animal house created in a different building. After studying different populations, two novel antigens were identified – DD from dandruff and LH from serum. The Department was also awarded a number of projects from major funding agencies in India. 110 Ph.D.s have been awarded from the Department in immuno-genetics, human population genetics, biochemical genetics, cytogenetics as well as human growth and development (see Table 3). Supervision has also been provided for M.D.

The Department was granted a DST-FIST programme in 2009. UGC Special Assistance Programme was also begun from 2011. Major equipment has been procured through these grants for two centralised laboratories. The faculty has been working mainly on not only growth and development but also on genetic investigation and nutrigenomics of complex disorders, genotoxicity testing of occupationally exposed individuals as well as the molecular characterisation of human cancers.

In 2013, the Department was renamed the Department of Human Genetics.

In 1973, a UGC-funded research centre was set up for Physical Education and Sports under this Department which eventually became an independent Department of Physiotherapy and Sports Sciences in 1989. It must be remembered that Prof. L.S. Sidhu and others from the parent Department had always worked in Sports Sciences and related research, often advising the government and sportspersons on aspects related to training or performance in association with the National Institute of Sports (NIS) located in Patiala.

Prof. P.K. Chattopadhyay from the Department of Anthropology, University of Delhi joined the Department of Forensic Science at Punjabi University, Patiala. After his retirement from there, he was employed for a time at Amity University, NOIDA.

A Department of Sociology and Social Anthropology also exists in the Patiala University campus since 1969. However, its focus and emphasis has been on developing sociology and employing them rather than on any aspect of social anthropology. As a result, its interaction with other Departments of Anthropology has been just about non-existent. Prof. Chaudhury, now retired, has been interacting with the Department of Anthropology, Panjab University, Chandigarh. The Department has three Professors, two Readers and one Lecturer, who are working on social theory, women's studies, folk religion, gerontology, sociology of violence, rural social structures, Sikhism and Gandhism. The combination is a rare one and the Department of Anthropology at Allahabad University was one of the only ones to have used this combination at one time.

Amritsar

According to the recommendations given by the UGC, the Department of Human Genetics was created as a part of the School of Life Sciences at the Guru Nanak Dev University at Amritsar, Punjab in 1988. This was initially named Department of Human Biology and human Genetics but eventually renamed in 1993 as the Department of Human Genetics. This Department had been set up under Prof. Jai Rup Singh, who went on to become the Vice-Chancellor of the Central University of Punjab at Bhatinda later. A large part of the initial work of the Department was started by Prof. Amarjit Singh Bhanwer. He was born on 25 August 1955, completing his M.Sc. in Human Biology from Patiala with a first position before completing a Ph.D. in 1986 from the same University. Funds amounting to Rs 1.57 crore were obtained from the Department of Biotechnology, Government of India, to set up a Centre for Genetic Disorders in 1990. After five years, the University paid for the cost of running the Centre and it was merged with the Department of Human Genetics in April 2010.

Under this kind of a mandate, the Department provided diagnostic services for cases where chromosomal anomalies were suspected. Individuals

and families are guided regarding their future options. A data base of inborn errors of metabolism is a part of the laboratory equipment. A multi-level approach for screening and evaluation of genetic diseases of north-west Indian populations has also started. The department begins with population studies, growth studies, cytogenetics and molecular genetics. Different populations of Punjab have provided comparative data on different castes, especially relating to nutrition and anthropometric profiles. A database has been set up for various body morphological characteristics including body composition parameters of various populations studied. A molecular biological profile of diseases like cancer, cardiovascular diseases, diabetes, obesity, hypertension, eye disorders, etc., has also been studied to find indications, if any, of genetic susceptibility or resistance to these diseases. Gene mapping studies through a microsatellite laboratory has been done on large families suffering from various genetic diseases. A special part of this is the mapping of a variety of eye disorders. A sample collection of this rich data has been kept through blood/DNA/lens samples. The information from these has been incorporated in global databases like National Centre for Bio-Informatics (NCBI), World Health Organisation (WHO) and Online Mendelian Inheritance in Man (OMIM). The Department is DST-FIST sponsored as well as a UGC-SAP Department. The projects received by the Department have mainly been from Department of Bio-Technology and the University Grants Commission. The list given of some Ph.D.s from the Department reflect the kind of good research the Department has been conducting.

The Department of Sports Medicine and Physiotherapy at Guru Nanak Dev University at Amritsar also employs Dr. Shyamal Koley, a Physical Anthropologist, who has been Heading the Department. Dr. Koley was born on 5 June 1964 and studied at the Department of Anthropology, Dr. Hari Singh Gour University at Sagar, Madhya Pradesh. He had conducted a Ph.D. research on 'The influence of Season of Birth on the Formation of Dermatoglyphic Characteristics' under the supervision of Prof. P. K. Shrivastava which was completed in 1992.

Ludhiana

In 1975, the Punjab Agricultural University at Ludhiana started a post-graduate course in child development. For this purpose, they set up a Department of Child Development. Till 1980, the Department was also assisted by an All-India Coordinated Research Project in Home Science (Child Development). All the four phases of this programme are now over successfully after 28 years. The Department has 2 Professors, 9 Associate Professors and 3 Assistant Professors comprising a total of 14 faculty members. In 1998 a Ph.D. programme was initiated. Soon, it became a Department of Human Development. A one-year Diploma in Management of Creche and Nursery School was begun in 2003 and by August 2008 a three-month certificate course in Child Care.

A Laboratory Nursery School was running for 38 years while from 1998 a Laboratory Day Care Centre has been operational. This has become a basis for teaching and research activities in the Department. These researches include issues like early childhood care, education and development, adolescent guidance, counselling, growth, marriage and family studies, therapy, managing senescence, developmental, educational and social psychology, women's studies and empowerment, child and family welfare, children and families with special needs, development of intervention programmes with special reference to parents, among others. The research includes the use of this data to provide care of children and assistance to working mothers as well as a focus on the rural population and disadvantaged sections of society.

An important faculty member from the viewpoint of Anthropology were Prof. I.J.S. Jaswal and Dr. S. Jaswal. After completing their Ph.D. from the Department of Anthropology, Panjab University, Chandigarh in 1976-77, Dr. I.J.S. Jaswal went to the Department of Anthropology at the North-Eastern Hill University, they went for a while to Jammu University from where they both became a part of the Department of Human Development at PAU, Ludhiana.

Srinagar, Garhwal

It was Prof. A.P. Singh who was one of the founders of the Department of Anthropology at the Hemwati Nandan Bahuguna Garhwal University on 1 December 1976. It began by teaching undergraduate classes. Garhwal was initially part of Uttar Pradesh, whose capital Lucknow had a large number of Anthropology Departments overflowing with students. It was unthinkable that the far-away region of Garhwal was bereft of any such course. In 1980, postgraduate teaching was also begun at the Department. Currently it also has a thriving Ph.D. programme. By 1994, the Department had shifted away to new campus. Prof. A.P. Singh is currently Head of the Department at Lucknow University while the first Professor/Head was Dr. R.S. Negi. Prof. Negi was well-known as a Director of the Indira Gandhi National Museum of Man at Bhopal in Madhya Pradesh. From 22 December 2007, the Head of the Department at Garhwal University has been Prof. Hari Bhajan Singh Chauhan, who has worked extensively on the tribes of the Garhwal Himalayas. Dr. V.S. Chauhan has a Ph.D. in socio-cultural anthropology along with a D.Phil. Dr. Bina Saklani specialises in Medical Anthropology and also has a D.Phil.

Prof. P.C. Joshi joined the Department of Anthropology at Garhwal University, Srinagar, initially. He then resigned and joined the Institute of Human Behaviour and Allied Sciences (IHBAS), Delhi as an Anthropologist. Eventually, he joined back in the Department of Anthropology at Delhi as a Professor.

According to its official website, the Department has 1 Professor, 2 Readers and 3 part-time Lecturers. The Department wishes to begin a Masters course in Forensic Science (since it already has a Diploma Course in Forensic Anthropology) as well as an M.Phil. course in Anthropology. In all, 16 D.Phil. degrees have been awarded by the University. The faculty of the Department have over 50 publications. It has a Museum of Himalayan Cultural Heritage and Conservation. One of the areas of its earlier years of study included that of the mysterious and difficult site in the hills called Rupkund.

Two other colleges in the area of Uttarakhand also have Anthropology having a total of three faculty members.

Conclusions: Is Anthropology Growing in the North-west?

The development and growth of Anthropology in North-Western India shows some promising areas for the future as well as some disappointments. This may provide some ideas regarding regional development as well as some trends within Anthropology that need to be looked into. Local politics and state level issues also seem to have shaped how anthropology has grown and developed here. Further, such state level developments and national anthropologies may show common trends with the way Anthropology is developing in the Asian region (Ben-Ari and van Bremen, 2005).

Anthropology has previously been thought of as a 'western apprentice' (Sinha, 1980) or as an 'uncertain transplant' to India (Saberwal; 1982). Delving deeper into the psyche of these early anthropologists, one sees often that their research orientations and ideas have developed due to local, cultural or individual events that have shaped their lives and works. This orientation has been overlaid on top of any 'western' or other biases that they might also have.

One complaint that has been levelled about Indian anthropologists has been that they have never developed a clear identity of their own that stems from their own regional contexts (Chatterji, 2005). While analyses of Indian anthropology show a lot of diversity within (Sarana and Sinha; 1976), there seems to be very little analysis coming through. One kind of analysis divides Indian anthropology into some stages and comments that the final stage, that of an 'analytical phase' is yet to be reached (Vidyarthi, 1975).

Wherever Anthropology has existed it has been slowly 'indigenizing' itself (Sinha; 2005). This localisation has been happening due to the local, social and political events that have affected the subject. It is in this context that one must look into five aspects of each of these Departments. They include:

- A) The preparation of the courses and set of readings that dominate;
- B) The research conducted by the faculty;
- C) The research conducted by the research scholars and others;

- D) The identity of the Department as a whole; and
- E) The peculiarity of the collections of the museums, or their lack.

At the Department of Anthropology, University of Delhi, faculty and syllabi show signs of internecine battles common to the rest of the country regarding the primacy (or equality) of Physical or Social Anthropology. In Punjab, this has become a battle which has already been won not only by Physical Anthropologists but a further sub-discipline within it. In other words, in this region, practical use maintained some sub-disciplines at the cost of others. These included studies on growth, development and nutrition, sports physiology and human genetics. The battles to rename Departments with these new areas follow either on lines of personal interest or eventually on the lines of government focus and arenas that attract better funding for research or Departmental funds. They form the key symbols around which certain kinds of research reorganise themselves at different times. As a result, Departments shatter the unity of Anthropology to focus on certain practical aspects but eventually lose out on the trend of holism that has aided anthropological research.

The societal linkages of these separate physical changes are then lost in the analysis. This is what has happened with much Anthropology that has been conducted in Punjab. Social anthropologists in the region face a lack of funds, lack of employment and are thus reduced in numbers. Physical sciences are preferred to the social sciences. This may not just be local but a global imperative, where the 'scientific validity' of Anthropology is often repeatedly sought (Wade, 2010). In the same manner, pressure is applied on Anthropology Departments to produce and be rewarded for that which has relevance for applications, which does not often suit the development or growth of the subject (Srivastava, 2012).

So there is not only a split in this region between Socio-Cultural Anthropology and Physical/Biological Anthropology, but also between different sub-disciplines between these streams. Prehistoric Archaeology and Linguistic Anthropology are ignored completely or given only lip-service.

Anthropology, then, began in Calcutta University and was then transferred to Delhi University. From there it spread to other regions in the North-West as well as to other areas. The subject as well as its supporting government has often pandered to market forces that have decided on the further direction of its growth at the cost of its own internal agenda. Some have even removed the label Anthropology from their own Department labels in order that they might become more successful in their own way.

The work of researchers like Prof. S.M.S. Chahal and Prof. A.J.S. Bhanwer, among others, has enabled the development of Anthropology towards a specialisation in Human Genetics. However, still, they maintain close contact

and research with other Departments of Anthropology. In this and in many other matters like the membership of academic bodies, they feel a close association with Anthropology. In Patiala, they have also taught a paper on Social Anthropology. In other arenas they have overlooked the holism inherent in Anthropology. Many of the other faculty members also continue to work in more traditional arenas of Physical Anthropology.

Delhi University got much of its direction from the interests of its government. The government, especially its Prime Ministers donated many things they were given as gifts to the museum at the Department of Anthropology, University of Delhi. This showed the interest of the government. Funding also came which made the Department feel secure. Perhaps, in other states Department were either never encouraged thus making them feel insecure.

Garhwal University had its links with the Department of Anthropology, University of Delhi. However, it also had very strong ties with its state Uttar Pradesh and its capital at Lucknow where there was a large and thriving Anthropology spread across the university and its many colleges. Many of the students felt that it was not only useful as a subject for studying for the Indian Administrative Services examinations. They also felt that Anthropology was going to help them in learning about political behaviour and thus they would be able to participate in the politics of the state. Later, Garhwal became a part of a separate state called Uttaranchal, but the behaviour of this Department continued in the same spirit.

Haryana, Rajasthan, Jammu and Kashmir as well as Himachal Pradesh in this zone had steadily ignored the idea that Anthropology was important for their state. Recently, Himachal Pradesh began to set up a Central University within it. When applications were requested through an advertisement for faculty members for this new University, Anthropology was also included. This was unlike Rajasthan and Haryana. In fact, Rajasthan has often not been included in the count when North-Western states are being enumerated. Due to its 'disturbed' status, Jammu and Kashmir has also been similarly neglected. It would not be true to state that the states which do not teach Anthropology have not had significant anthropological work conducted within it by others.

Perhaps, this lack of anthropologists in the government sector in these states has been the reason why Punjab, Haryana and Chandigarh have denied that there are any tribes or other marginalised communities in these states. Vote bank politics has ensured that tribes in these regions are enumerated as castes in these states/Union Territories. This enumeration is now being mildly contested, without much effect.

There is much argument about whether Anthropology syllabi in different Universities should be uniform. Local development of Anthropology

departments shows that this is a retrograde step and should be avoided. Detractors claim that if the uniformity is not maintained then we may have anthropologists who may not know anything taught at some Universities. In other words, syllabi could become totally divergent and would make people uncertain about what constitutes Anthropology! How, then, could we have a pan-Indian examination format to decide the most likely candidates to be selected for funding for Ph.D.? There is also much heartburn in cases where Departments name themselves differently but still receive funds from traditional anthropological funding sources. On the other hand, if we do this, then local development of Anthropology would become crippled and the strength of anthropological multi-disciplinarity would be lost? This case is never more an issue than in Punjab where Anthropology is no longer taught as Anthropology, yet the practitioners are often claiming that they are anthropologists.

Finally, then, if Anthropology is taken as a discipline, then it seems that it is losing out in the North-West with little growth having taken place in the number of departments that have come up. However, this does not mean that the practice of Anthropology has become less in these regions. If anything, people under different labels are doing more Anthropology. How this might be logically integrated as a multi-discipline is something that needs to be thought about in much greater detail than has been possible in this paper.

Table 1
Anthropologists from Delhi University in the Formative Years

<i>Year</i>	<i>Name</i>	<i>Title of Ph.d. Thesis</i>
1959-60	INDER PAL SINGH MONGA	The Inheritance of Finger Ball Patterns
1959-60	SURENDRA CHANDRA TIWARI	Ethnological Study of the Rajis
1959-60	JAI DAYAL MEHRA	Ethnological Study of the Shokas with Special Emphasis on Social Structure and Change
1961	PREM KUMAR DATTA	Studies on the Racial Variation and Inheritance of Plantar Dermatoglyphic Pattern and Main Lines
1961	SWADESH ANAND	
1962	ABHIMANYU SHARMA	A Study of Palmar Dermatoglyphics of Burman's Certain Fresh Methodological Approaches as Based on Burman Data
1964	VIJENDER BHALLA	
1965	DIBYENDU KANT BHATTACHARYA	
1965	PRAVEEN K. SETH	
1965	HARI KISHAN KUMBNANI	
1965	SALIL KUMAR BASU	
1968	MOHINDER KUMAR BHASIN	
1968	RAGHBIR SINGH	
1968	ALOK KUMAR KALLA	
1969	PRASANTA KUMAR CHATTOPADHYAY	
1970	PARAMANANDA DAS SHARMA	
1972	SURINDER NATH	
1973	RANN SINGH MANN	An Analytical Study of Social Structure and Social Change in a Delhi Village
1974	PRADIP KUMAR GHOSH	
1976	VARDESH CHANDER CHANNA	Aggarwals of Old Delhi Area (under Prof. P.C. Biswas)
1976	SHANTI LAL MALIK	
1976	SHIBANI ROY	
1979	SATWANTI	
1980	SHALINA MEHTA	
1980	GAUTAM KUMAR KSHATRIYA	
1981	SUBHADRA CHANNA	Tradition and Rationality in Economic Behaviour: A Case of the Sheheri Sub Caste of the Dhobis in Delhi
1985	POORAN CHAND JOSHI	
1985	SYED HASSAN MUJTABA RIZVI	

Table 2
Ph.D.s Awarded from Department of Anthropology, Panjab University,
Chandigarh

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
1.	Jagdish Chand Sharma	Age changes in body proportions of Maharashtratrians		1963
2.	Shashi Khajuria	Age changes as seen in the physical growth of Punjabi girls	Prof. S.R.K. Chopra	1968
3.	Samvit Swarupa Kaul	Physical growth and development (Human)	Dr. J.C. Sharma	1971
4.	S. Prakash	Appearance of centres of ossification of bones in children from birth to 5 years	Prof. S.R.K. Chopra & Dr. Inderjit Dhawan	1971
5.	Shashi Bala Bajpai	Age changes as seen in some body measures, subcutaneous fat and physiological variables among the Rajput families in Rajasthan.	Prof. S.R.K. Chopra	1975
6.	Rikshesh Malhotra	A study of Physical growth and development status of a high attitude leaving population in the Himalayas (A cross-sectional study of Kinnaura male Rajputs).	Prof. S.R.K. Chopra	1975
8.	Inderjit Singh	Skin colour in North Indian population, caste differences and age changes: A semi-longitudinal study	Prof. V. Bhalla	1976
10.	Suraksha Devi	The Genetic structure of three North Indian populations and a study of naturally occurring antibody resistance and correlation with age, sex and caste.	Dr. V. Bhalla	1977
11.	Ashok Kumar	Skeletal maturation in the Rhesus Monkey appearance and fusion of centres of ossification in the upper	Prof. S.R.K. Chopra & Dr. L.S. Sidhu	1977
12.	Sushma	Study of dermal ridge configuration and physical growth in mentally retarded boys and girls.	Dr. V. Bhalla	1977
13.	Indu Ghai	A cross-sectional study of Physical Growth and development in Himachal Rajput females ages six to seventeen years	Prof. S.R.K. Chopra & A.B. Saran	1979

contd. table 2

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
14.	R.N. Vashisht	Contribution to the Tertiary Mammals from Haritalyangar H.P. India and their evolutionary significance in the context of Paleo-Primate studies.	Prof. S.R.K. Chopra & Dr. L.S. Sidhu	1980
15.	Vinod Kaul	Age changes in Dental arches: A study of Growth of Dental Arches in the Jats of Haryana	Dr. S. Prakash	1980
16.	Baldev Singh Karir	Pre-Historic and geomorphological investigations in the valley of Satluj North-Western India.	Prof. S.R.K. Chopra	1981
17.	Piush Bhatnagar	Metrical study of the Laryngeal cartilages.	Dr. V. Bhalla	1982
18.	Rajan Gaur	Palaeontology & Palaeoecology of Plio-Pleistocene upper Sivalik sediments in the Northeast of Chandigarh	Prof. S.R.K. Chopra	1982
19.	Bulusu Lakshmi	Dermatoglyphics of congenital malformation of heart.	Dr. J.C. Sharma	1982
20.	K.D. Sharma	Genetic contribution to body morphology: A study based on human twins and pedigree data.	Dr. J.C. Sharma	1983
21.	Bijon Gopal Banerjee	An anthropological profile of immigrant Bengalis in Delhi	Dr. J.C. Sharma	1983
22.	Vinod Parkash Gaur	Application of Lectins to some problems in sero-anthropology- i) Differentiations of human and animal blood ii) Construction of trees of Immunogenetic relationship in vertebrates species.	Dr. V. Bhalla	1983
23.	Kuldip Kumar Bhatia	Genetic structure of an inbred Human isolate.	Prof. S.R.K. Chopra	1984
24.	Ranbir Singh Balgir	Demo-Genetic investigations among the Hindu & Muslim Gujjar: the two breeding isolates of sub-Himalayan and Himalayan region.	Dr. J.C. Sharma	1984
25.	Anil Kumar Bhalla	Longitudinal study of body growth of Punjabi children during the first year of life.	Dr. S. Kaul	1984
26.	Puran Chand	Differentiations in isolation: A comparative morphometric study of Malanese in relation to some neighbouring populations of Himachal Pradesh.	Dr. J.C. Sharma	1985

contd. table 2

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
27.	Raj Kamal	Discrete nonmetric and metric morphological variation of the human skull: A study based on six skeletal population sample of India.	Prof. S.R.K. Chopra	1985
28.	Rashik Bihari	Lectins as tool to detect inter-specific differences in mammalian blood and their relevance in highlighting immunogenetic relationship between man and other animals.	Dr. J.C. Sharma	1985
29.	Mohinder Pal	Analysis of genetic markers in blood and semen stains and their distribution in Indian population.	Dr. V. Bhalla & Dr. V.K. Arora	1987
30.	Harjeet Kaur	Metrical study of the laryngeal cartilages	Dr. Surya Prakash	1989
31.	Manjeet Monga	Labour management relations on public and private sector industries.	Dr. V. Bhalla	1989
32.	Arun Sharma	Studies on isoenzymes of forensic importance in body fluid stains and tissue.	Dr. V. Bhalla	1989
33.	P. Raghwan	Palaeoenvironment of the Pinjore formation based on microfossil assemblages and enamel ultrastructure in Pinjore and other Sivalik primates.	Dr. S. Prakash & Dr. Ashok Sahni	1990
34.	G. Padmanathan	Skeletal maturation and physical growth of well of North Western Indian children: attained means and temporal conditional single one velocities.	Dr. S. Prakash & Dr. V. Bhalla	1990
35.	Jogi Ram Gaur	A study of blood group and some other genetics polymorphisms in selected population of Haryana with special reference to their detectability in direct blood on aging.	Dr. V. Bhalla	1990
36.	Sanjeev Kumar	Fat patterning in North-Western Indian population ranging in age from 12-49 years.	Dr. S. Prakash & Dr. I.J. Dhawan	1990
37.	Mahmood Khazub	Cytogenetic profile of malformed children and cancer patients.	Dr. V. Bhalla	1990

contd. table 2

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
38.	Harbir Kaur	A study of the Human clavicle.	Dr. S. Kaul & Dr. I.J. Dhawan	1990
39.	Kiran Bhatia	Family power structure: a comparative study of rural and urban women of Haryana.	Dr. Shalina Mehta	1992
40.	Kaushik S. Bose	A survey of group specific and non-specific lectins in Indian flora and fauna and their use as tools for the characterisation of human red cells, serum and saliva.	Dr. V. Bhalla	1992
41.	Poonam Ahluwalia	Age changes in anthropometric measurements and physical performance in Tibetan girls from 8-18 years.	Dr. R.N. Vashisht	1993
42.	Sonia Randhawa	ABH secretion in health and disease.	Dr. V. Bhalla	1993
43.	B.P. Awasthi	Education and social change in Gaddi tribe: A comparative study of educational and non-educational Gaddis.	Dr. J.C. Sharma	1993
44.	Anita Saxena	Physical growth and changes in body proportions of Rajputs children of Rajasthan desert with social reference to their nutritional status.	Dr. J.C. Sharma	1994
45.	Nupur Mukhopadhyaya	Tibetan culture and traditional system of medicine in immigrant Tibetans in India.	Dr. B.G. Banerjee	1994
46.	Rajni Lamba	An anthropological analysis of use culture complex of Gonds of Mandla.	Dr. Shalina Mehta	1994
47.	Archana Bhatt	Physical growth and nutritional status of rural Kashmiri children of pre-adolescent age.	Dr. S. Kaul	1995
48.	Sushil Kumari	A study of bilateral asymmetry in dermal ridge configuration of hand in relation to the elements of upper limb laterality in North Indian population.	Dr. V. Bhalla	1996
49.	Rosy Sachdeva	Specific difference in the serological activity of Anti-H type lectins and their interaction with secreted Antigens in human saliva.	Dr. V. Bhalla	1996

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
50.	Niraj Handa	Somatotype of the Punjabi females during adolescence with some insights into the genetic environment determinants.	Dr. S. Kaul & Dr. Baldev Singh Karir	1997
51.	Aumthip Kongpetchi	Bio-social profile of top women executives in Bangkok, Thailand.	Dr. S. Prakash	1998
52.	Maninder Kaur	Plantar dermatoglyphics: A study of intra and inter population variations in five endogamous groups of Punjab.	Dr. V. Bhalla & Dr. Indu Talwar	1998
53.	Suninder Kaur Sodhi	Aids and adolescents: a study of attitudes, awareness, beliefs, conceptions and misconception among girls students of Chandigarh (India)	Dr. Shalina Mehta	1999
54.	Bupinder Kumari	Intra-utremic growth and development of Punjabi foetuses.	Dr. J.C. Sharma	1999
55.	Lavina Sodhi	Mixed longitudinal study of physical growth and sexual maturity of Punjabi adolescent girls with reference to socio-economic growth.	Dr. J.C. Sharma	1999
56.	Surinder Kumar Pal	Biomedical-anthropological investigation on epileptics.	Dr. K.D. Sharma	2003
57.	Kewal Krishan	Limb bilateral asymmetry and footprints of Male adults Gujjar population in parts of Punjab and Haryana	Dr. R.N. Vashisht	2003
58.	Meenu Lakhnupal	Growth status, physique, nutritional profile of Rajput children of Una and Narkanda of H.P.: A comparative study to investigate the effect of altitude.	Dr. Rajan Gaur	2003
59.	Kanwar Gurpreet Singh	Utilisation of Ayurveda system of medicine and the health care service: an anthropological study of an urban milieu.	Dr. B.G. Banerjee	2003
60.	Akpopng Vonkanyam	The socio-cultural impact of drug addiction on Thai youth: An anthropological study.	Dr. B.G. Banerjee	2003
61.	Rajesh Kumar	A study of continuity and changes among the immigrant Tibetans in North India.	Dr. B.G. Banerjee	2004

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
62.	Maninder Kaur	A study of morpho-physiological variations among Punjabi rural-urban Brahmin females of District Roopnagar with special reference to senescence.	Dr. Indu Talwar	2004
63.	Archana Sharma	A study of girls child socialization in an Indian urban slum.	Dr. B.G. Banerjee & Dr. R.N. Vashisht	2005
64.	Bandana Trikha	A study of some congenital markers in patients with the select gastrointestinal disorders.	Dr. K.D. Sharma	2005
65.	Robin Saluja	Blood group in in compatibilities and reproductive performance in a north Indian population with special reference to the influence of genes at the H.P and Glo-ILOCI.	Dr. V. Bhalla	2006
66.	Raminder Kaur Sodhi	Impact of industrialisation on an agrarian society: A case study of Asron industrial complex in Nawashahar district of Punjab.	Dr. Shalina Mehta	2006
67.	Richa Gupta	A socio-demographic study of unmet needs of family planning in Himachal Pradesh.	Dr. B.G. Banerjee	2007
68.	Loveleen Khinda	Anthropology of gender: A comparative study of Jat and Scheduled Caste girls of Fatehgarh Sahib District of Punjab.	Dr. A.K. Sinha	2007
69.	Kanchan Chandan	Sex ratio and sex discriminatory selection: A microdemographic study of Punjabi communities of Gurdaspur District (Punjab)	Dr. B.G. Banerjee	2008
70.	Purnima Parashar	Menopause among Punjabi Brahmins and Khatri women of Chandigarh: A bio- social Study.	Dr. R.K. Pathak	2009
71.	Suresh Kumar	Mammalian palaeontology and palaeoecological analysis of upper exposed in the northwest-Northeast of Naraingarh (Haryana)	Dr. Rajan Gaur	2009
72.	Jagmahender Singh	Ageing and sexing from adult human clavicles and sternum: A forensic anthropological study.	Dr. R.K. Pathak	2009

contd. table 2

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
73.	Nonmeikapam Inaoba Singh	Meta-Narratives of HIV positive intravenous drug users from Manipur catharsis from interpretation-An anthropological analysis.	Dr. Shalina Mehta	2010
74.	Rajiv Giroti	Genetic characterization of Gaddis and Gujjar of Himachal Pradesh using microsatellite DNA markers.	Dr. Indu Talwar	2010
75.	Achla Gupta	The role of mass media and communication in health and healthcare: An anthropological study in urban setting.	Dr. A.K. Sinha	2010
76.	Nitika Sood	Transcending the infimite: An anthropological study on the religion of the Parsi community of Mumbai.	Dr. Abhik Ghosh	2010
77.	Sukhbir Sen	Leprosy, Stigma and the Society: An anthropological Study in an urban setting.	Dr. B.G. Banerjee & Dr. A.K. Sinha	2010
78.	Anek Ram Sankhyan	Pleistocene hominins and associated finding from central Narmada valley bearing on evolution of Man in south Asia.	Dr. Indu Talwar	2011
79.	Parul Sharma	Oral health status and dental variations among the Gaddis of Himachal Pradesh.	Dr. K.D. Sharma	2011
80.	Gurinder Kaur	Faith and faith healing with special reference to the Sikhs in North India: An anthropological study in medical anthropology	Dr. B.G. Banerjee & Dr. A.K. Sinha	2012
81.	Lemessa Mergo Bulto	Forest resources, deforestation, forest policy and local customs in Horro Gudur, Oromia regional state in Ethiopia: Anthropological inquiry in retrospect and prospect.	Dr. A.K. Sinha & Dr. K.D. Sharma	2012
82.	Bhavneet Kaur	Prevalence and covariates of obesity and hypertension among affluent school going Khatri boys and girls of Chandigarh aged 6 to 17 years.	Dr. Indu Talwar	2012
83.	Reetinder Kaur	An anthropological study of socio-cultural dimensions and health care of cancer patients with special reference to Malwa Region of Punjab.	Dr. A.K. Sinha	2013

contd. table 2

S. No.	Name	Title of Thesis	Supervisor/S	Year of Completion/ Degree Awarded
84.	Mohammad Reza Eghdami	Investigation of the lithic industries of part of southeast Madhya Pradesh with special reference to microscopic wear analysis.	Dr. Rajan Gaur & Dr. Indu Talwar	2013
85.	Shruti Jain	Recognition and avoidance of musculoskeletal disorder and respiratory illness through applied occupational ergonomics in woollen industries.	Dr. G. Pathmanathan	2013
86.	Diskit Wangmo	Health culture among the Broq-Pa Tribe in Leh district of Jammu and Kashmir: An anthropological study.	Dr. A.K. Sinha & Dr. B.G. Banerjee	2013
87.	Neelam	Forensic facial identification: Metric and morphological features of the human face and photographs among Ahirs and Balmikis of Chandigarh.	Dr. Kewal Krishan	2014
88.	Tripta	Serum apolipoprotein B and body fat variation in coronary heart disease patients and normal healthy Punjabi Khatri/Arora adults of age 40-55 years.	Dr. K.D. Sharma	2014
89.	Jasbir Arora	Age estimation from teeth in north western adult Indian: A histomorphological and ultrastructural study.	Dr. Indu Talwar	2014
90.	Vajiholla Bagheri	Allied in time, space, culture and ethno-science: ethnographic profile of Galesh community of Mazaradaran province in northern Iran.	Dr. Shalina Mehta	2014
91.	Sapam Ranabir Singh	Locating Texts of Social Vulnerability in Disaster Prone Sites-An emerging challenge in Cyclone Affected Puri District of Orissa: Perspectives from Anthropology	Dr. Shalina Mehta	2015

Table 3
Ph.D.s Awarded from Department of Human Genetics, Punjabi
University Patiala

S. No.	Name	Title of Ph.D. Thesis	Supervisor/S	Year
1	H.S. Sodhi		Prof. L.S. Sidhu	1977
2	D.P. Bhatnagar		Prof. L.S. Sidhu/ Dr. N.D. Aggarwal	1978
3	S.P. Singh		Prof. L.S. Sidhu	1979
4	N.S. Mitter		Prof. I.J.S. Bansal	1979
5	Harsurinder Kaur		Dr. P.K. Shrivastava	1980
6	Pushpa Singal		Prof. L.S. Sidhu	1980
7	Anil Jindal		Prof. I.J.S. Bansal/ Dr. S.K. Basu	1981
8	P.K. Sehajpal		Dr. P.K. Shrivastava	1981
9	D.K. Kansal		Prof. L.S. Sidhu	1982
10	Parveen Pal		Prof. I.J.S. Bansal	1983
11	Praveen Singhal		Prof. I.J.S. Bansal	1983
12	Sharda Sidhu		Prof. L.S. Sidhu/ Dr. Lakhbir Singh	1983
13	Rupinder Kaur		Prof. L.S. Sidhu	1984
14	M.S. Sohal		Prof. L.S. Sidhu	1985
15	Promila Malhotra		Prof. L.S. Sidhu/ Dr. K.C. Saronwala	1985
16	Kuldeep Kaur		Dr. P.K. Shrivastava	1986
17	Paramjit Singh		Prof. I.J.S. Bansal	1986
18	Amarjit S. Bhanwer		Prof. I.J.S. Bansal	1986
19	Rajni Abrol		Prof. L.S. Sidhu	1986
20	Ms Inderjit Kaur Sehgal	Genetic Variation Among Five Endogamous Groups of Punjab	Prof. I.J.S. Bansal/ Prof. S.M.S. Chahal	1986
21	Kusum Prabha		Dr. P.K. Sehajpal	1986
22	Satbir Kaur		Prof. I.J.S. Bansal/ Dr. A.R. Sarin	1986
23	Anil Kumar		Prof. L.S. Sidhu	1987
24	Rakesh Giri		Prof. L.S. Sidhu	1987
25	Rajinder Kumar		Prof. I.J.S. Bansal/ Dr. A.R. Sarin	1988
26	G.L. Khanna		Prof. D.P. Bhatnagar	1989
27	Mr. Krit Pal Singh Kushwaha	A Study of Serogenetic Markers Among the People of Haryana and its Application in Forensic Science	Prof. I.J.S. Bansal/ Prof. S.M.S. Chahal	1989

S. No.	Name	Title of Ph.D. Thesis	Supervisor/S	Year
28	S.K. Verma		Prof. L.S. Sidhu/ Dr. G.S. Cheema	1989
29	Beena Batra		Prof. L.S. Sidhu	1989
30	S.S. Bandopadhyay		Prof. L.S. Sidhu	1990
31	Amita Kumar		Prof. D.P. Bhatnagar	1990
32	Vanita Berry		Dr. Harsurinder Kaur	1990
33	S.S. Dhaliwal		Prof. L.S. Sidhu	1990
34	Gurinder Kaur		Prof. D.P. Bhatnagar	1991
35	Prabhsimran Kaur		Prof. D.P. Bhatnagar	1991
36	Sarban Singh		Dr. M.S. Sohal	1991
37	Surinder Pal Kaur		Prof. L.S. Sidhu	1992
38	Ms. Gurjeet Kaur Sidhu	Enzyme Typing of Human Hair Roots	Prof. S.M.S. Chahal	1992
39	Mr. Parminder Singh	Biochemical Variation Among People of Garhwal Himalayas	Prof. I.J.S. Bansal/ Prof. S.M.S. Chahal	1992
40	Sagrika Gupta		Dr. Praveen Singhal	1992
41	Jaswinder Singh		Prof. L.S. Sidhu/ Prof. S.P. Singh	1992
42	Neeraja Sachdeva		Dr. D.K. Kansal	1993
43	Adarsh Bhalla		Dr. M.S. Sohal	1993
44	Abha Mandira		Dr. S.P. Singh	1993
45	Balwinder Kaur		Dr. Lakhbir Singh	1993
46	Sudeep Virk		Dr. Lakhbir Singh	1993
47	M. Eunice		Prof. I.J.S. Bansal/ Dr. S.K. Basu	1994
48	Abdul Samad Khan		Prof. I.J.S. Bansal/ Dr. Anil Jindal	1994
49	Satish Chitrapali		Prof. I.J.S. Bansal/ Dr. Anil Jindal	1994
50	Sarita		Prof. S.P. Singh/ Dr. Promila Mehta	1994
51	Gurpreet Kaur		Prof. L.S. Sidhu	1994
52	Navita Goel		Dr. Lakhbir Singh	1994
53	Harbhajan Kaur		Dr. Lakhbir Singh	1995
54	Amrit Pal Kaur		Prof. S.P. Singh	1995
55	Harinder Kaur		Prof. L.S. Sidhu/ Dr. Pushpa Singal	1995
56	Neeraj Mehta		Prof. D.P. Bhatnagar/ Dr. Harsurinder Kaur	1995

S. No.	Name	Title of Ph.D. Thesis	Supervisor/S	Year
57	Amrit Pal Kaur Kalra		Dr. Lakhbir Singh	1995
58	Sujjan Sekhon		Dr. Lakhbir Singh	1995
59	Inderjeet Kaur		Prof. L.S. Sidhu	1995
60	Mr. Ranbir Singh Parmar	Growth Patterns and Body Composition of Male Brahmins and Rajputs of Garhwal Himalayas	Prof. I.J.S. Bansal/ Prof. S.M.S. Chahal/ Prof. S.P. Singh	1995
61	Sumesh Kaushal		Dr. P.K. Sehajpal	1995
62	Rita Gurcharan Singh		Prof. L.S. Sidhu/ Dr. Pushpa Singal	1996
63	Avtar Singh		Prof. L.S. Sidhu	1996
64	Vasudha Sambyal		Prof. I.J.S. Bansal/ Dr. Satbir Kaur	1996
65	Jaspreet Viridi		Dr. Harsurinder Kaur	1997
66	Anita Sharma		Prof. I.J.S. Bansal/ Dr. B.C. Das	1998
67	Harbans Kaur		Prof. D.P. Bhatnagar/ Dr. M.K. Batish	1998
68	Ms. Jaskiran Kaur Shaheed	Transfection of Non-Melanocytic Cells with Tyrosinase Gene Constructs for Survival Studies	Prof. S.M.S. Chahal/ Dr. H. Hill	1999
69	Zora Singh		Prof. L.S. Sidhu/ Prof. S.P. Singh	1999
70	Puneet Pal Singh		Prof. I.J.S. Bansal/ Dr. Parveen Pal	1999
71	Sukhwinder Kaur		Dr. Pushpa Singal/ Prof. D.P. Bhatnagar	2000
72	Rajinder Kaur Mahal		Prof. L.S. Sidhu/ Dr. Pushpa Singal	2000
73	Kanwaljit Kaur Gill		Prof. L.S. Sidhu/ Prof. D.P. Bhatnagar	2000
74	Mr. Harjeet Singh	Erythrocyte Enzyme Variation Among People of Kumaon Himalayas	Prof. S.M.S. Chahal	2000
75	Pritpal Singh		Prof. L.S. Sidhu/ Prof. S.P. Singh/ Dr. Promila Mehta	2000
76	Manjit Kaur Narula		Prof. I.J.S. Bansal/ Dr. G.K. Ahuja	2001
77	Monica Singh		Dr. Harsurinder Kaur	2001

S. No.	Name	Title of Ph.D. Thesis	Supervisor/S	Year
78	Rupinder Kaur Virk	Genetic Status of the Scheduled Caste Populations in Punjab	Prof. S.M.S. Chahal	2001
79	Ms. Harjot Pal Kaur	Red Cell Enzyme Markers Among the Muslims: A Minority Community of Punjab	Prof. S.M.S. Chahal/ Dr. Parminder Singh	2001
80	Rajinder Kaur		Dr. Harsurinder Kaur	2001
81	Ms. Aparna Sarin	Distribution of Red Cell Enzyme Polymorphisms in Regional Subpopulations of Brahmin and Rajput of Himachal Pradesh	Prof. S.M.S. Chahal	2002
82	Suman Mukhopadhyay		Prof. L.S. Sidhu/ Dr. S.K. Verma	2002
83	Sukhjot Kaur		Dr. Praveen Singhal	2002
84	Rupinder Kaur Bansal		Prof. S.P. Singh	2004
85	Sulekha Misra		Dr. Praveen Singhal	2004
86	Kamaljit Kaur		Prof. S.P. Singh/ Dr. L.S. Sidhu	2004
87	Harleen Kaur		Prof. D.P. Bhatnagar/ Dr. Pushpa Singal	2005
88	Jasbir Kaur		Dr. Pushpa Singal/ Prof. L.S. Sidhu	2005
89	Ajitpal Singh		Prof. S.P. Singh	2005
90	Dolly Monisha		Prof. S.P. Singh	2005
91	Harjit Kaur		Dr. Promila Mehta/ Dr. Manmohan Singh	2006
92	Harmandeep Kaur		Dr. Harsurinder Kaur/ Prof. D.P. Bhatnagar	2006
93	Ms. Sukhvir Kaur	Biochemical Variation in the Jat Sikh of the Northern Districts of Punjab	Prof. S.M.S. Chahal	2006
94	Gulshanveer Kaur		Prof. S. P. Singh/ Prof. L.S. Sidhu	2006
95	Ms. Anjali Saini	A Study of Enzyme Markers in the Buksa: A Primitive Tribe of Uttaranchal	Prof. S.M.S. Chahal	
96	Ms. Mandeep Inder Kaur	Biochemical Variation among Three Endogamous Groups of the Tharu Tribe of Uttar Pradesh	Prof. S.M.S. Chahal	

Table 4
List of Some Ph.D.s Related to Anthropology From Guru Nanak Dev University, Amritsar, Punjab

S. No.	Name	Title of Ph.D. Thesis	Supervisor
1	Gagandeep Kaur	Serum Protein and Erythrocyte Enzyme Polymorphism in some Human Diseases	Prof. A.J.S. Bhanwer
2	Amarjot Kanwal	<i>In vivo and in vitro</i> Mutagenic Studies of some Antibiotics	Prof. A.J.S. Bhanwer
3	Inderjeet Kaur	DNA Markers in Four Endogamous Groups of Punjab	Prof. A.J.S. Bhanwer
4	Swarkar Sharma	Study of Genetic Diversity and Screening of Type II Diabetes Susceptibility in Some Population Groups of India	Prof. A.J.S. Bhanwer
5	Navdeep K. Randhawa	Study of Angiotensinogen and Angiotensin Converting Enzyme gene in the Essential Hypertensive Patients of North India	Prof. A.J.S. Bhanwer
6	Kawaljit K. Matharoo	Single Nucleotide Polymorphisms of Sulphonylurea Receptor and Adiponectin Genes in Type 2 Diabetes	Prof. A.J.S. Bhanwer
7	Ekta Rai	Analysis of Genetic Determinants and their Susceptibility to Type 2 Diabetes Mellitus in Northwest Indian Populations	Prof. A.J.S. Bhanwer
8	Nabodita Kaul	Association Study In Type 2 Diabetes In Some Population Groups of Punjab in Relation to UCP2, PGC1- α and SIRT1 Genes	Prof. A.J.S. Bhanwer
9	Yoginder Pal Singh	Association Analysis of KCNJ11, TC7L2, MT-ND3 Genes in Type2 Diabetes Patients of Different Endogamous Groups of Punjab	Prof. A.J.S. Bhanwer
10	Surbhi Sethi	Mutational Analysis of IRS-1, PI3K, PGC1 Alpha, KCNJ11 Genes in Type 2 Diabetes Mellitus	Prof. A.J.S. Bhanwer
11	Shiwani Vats	Genetic Polymorphism in Patients of Type 2 Diabetes and Coronary Artery Disease	Prof. A.J.S. Bhanwer
12	Rubina Sharma	Analysis of SNPs in CAPN10, PPARG, PGC1- α Genes and Their Role in Susceptibility to T2D in Different Population Groups of Punjab	Prof. A.J.S. Bhanwer
13	Jasmine Sohki	Analysis of Few SNPs in Pi3K, IRS-1, INS, INSR, KCNJ11, PP1G and ABCC8 Genes with Type 2 Diabetes and Their Role in Susceptibility in Different Population Groups of Punjab	Prof. A.J.S. Bhanwer

S. No.	Name	Title of Ph.D. Thesis	Supervisor
14	Ramandeep Kaur Ahluwalia	Association Analysis of Polymorphisms in CRP, MCP-1 and eNOS Genes in T2D and CAD Patients	
15	Ruhi Sikka	Association Analysis of Different Candidate Gene Polymorphisms in Diabetic Retinopathy	
16	Priyanka Raina	Association Analysis of MCP-1, eNOS and TGF α Gene Polymorphisms in T2D and ESRD Patients	
17	Jyot Amrita	A Study of Polymorphisms in Some Candidate Genes of Cardiovascular Disease in Menopausal Women	
18	Punit Arora	Genetic Epidemiological Study of Diabetes Mellitus in Amritsar	
19	Savjot Kaur	Study of Single Nucleotide Polymorphism in Some Candidate Genes Associated with Coronary Artery Disease	
20	Harkirat Singh Sandhu	Investigations on Effects of Phyto-Extracts Prepared at Nano Scale on Lindane Induced Hepatic Injury	

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