



Government Degree College Seethanagaram

(Affiliated to Adikavi Nannaya University)

Accredited with B Grade by NAAC (CGPA - 2.02)

One Day State Level Seminar on

Ancient Indian Migrations – A Genetic Study with Molecular Approaches

In collaboration with IQAC



Organized by

DEPARTMENT OF ZOOLOGY & DEPARTMENT OF HISTORY

27-02-2020

Abstract Volume

Tentative Technical Program

9.00 am to 10.00 am	-	Registration
10.00 am to 10.10 am	-	Inaugural Session by Smt. P. Kusuma Kumari Head, Department of Commerce IQAC Coordinator
10.10 am to 10.15 am	-	Lighting the lamp
10.15 am to 10.30 am	-	Seminar Introduction by Principal
10.30 am to 11.30 am	-	1 st Session – “Early Indian migrations from various parts of the World” by M. Pushpanjali M.A., M.Li.Sc., (Ph.D.), Assistant Professor Govt. College (A) Rajahmundry
11.30 am to 11.45 am	-	Tea break
11.45 am to 1.00 pm	-	2 nd Session – “The reasons beyond the destruction of Indus Valley Civilization and current scenario of Indian structure” by Dr. B. Raja Rao, M.A. Ph.D. Lect. in History & Principal (Retd.)
1.00 pm to 2.00 pm	-	Lunch
2.00 pm to 3.15 pm	-	3 rd Session – “Genetic studies on ancient Indian migrations, current research with particular emphasis on molecular approaches” by Dr. K.Sudhakar M.Sc., B.Ed., Ph.D. Head, Department of Zoology & Principal, Govt. Degree College, Seethanagaram.
3.15 pm to 3.30 pm	-	Tea break
3.30 pm to 4.30 pm	-	Faculty & Students Presentations
4.30 pm to 5.00 pm	-	Valedictory session by Sri V. Narayana Moorthy Lecturer in English, Vice - Principal



Culture and Heritage of Ancient Indian History – time line, facts and Events

B. Raja Rao, Principal (Rtd.)

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Abstract:

India's history and culture is dynamic, spanning back to the beginning of human civilization. It begins with a mysterious culture along the Indus River and in farming communities in the southern lands of India. The history of India is punctuated by constant integration of migrating people with the diverse cultures that surround India. Available evidence suggests that the use of iron, copper and other metals was widely prevalent in the Indian sub-continent at a fairly early period, which is indicative of the progress that this part of the world had made. By the end of the fourth millennium BC, India had emerged as a region of highly developed civilization. India's social, economic, and cultural configurations are the products of a long process of regional expansion. Indian history begins with the birth of the Indus Valley Civilization and the coming of the Aryans. These two phases are usually described as the pre-Vedic and Vedic age. Hinduism arose in the Vedic period.

The earliest records of the Indian history exist in the form of the Rock Shelters of Bhimbetka around 9000 BC to 7000BC which are situated on the southern edge of the central Indian plateau, in the foothills of the Vindhyan Mountains. There are five groups of rock shelters, each of them adorned with paintings that are believed to date from the Mesolithic Period right through to the historical period. Mehrgarh is one of the most significant sites belonging to the Neolithic Age (7000 BC to 3300 BC) which is situated on the Kachi plain of Baluchistan (Pakistan), it lies to the west of the Indus River valley. The Indus valley people practiced agriculture, domesticated animals, made tools and weapons from copper, bronze, tin, advanced and flourishing economic system and even traded with some Middle East countries. The major events in the timeline of the Indus Valley are given below: The early Harappan Phase was around 3300 BC to 2600 BC and it was one of the three earliest urban



Indian Brahman Migration

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Abstract:

A new study has revealed that Indians belonging to higher castes are genetically closer to Europeans than are individuals from lower castes, whose genetic profiles are closer to those of Asians. The study compared genetic markers located on the Y chromosome and the mitochondrial DNA between 265 Indian men of various castes and 750 African, Asian, European and other Indian men. To broaden the study, 40 markers from chromosomes 1 to 22 were analyzed from more than 600 individuals from different castes and continents. The comparison of the markers among these groups confirmed that genetic similarities to Europeans increased as caste rank increased. The study, led by Michael Bamshad of the University of Utah, in Salt Lake City, and his colleagues, is reported to be the most comprehensive genetic analysis to date of the impact of European migrations on the structure and origin of the current Indian population. The article appears in the current issue of *Genome Research*.

Key words: Europeans, Genetic markers, mitochondrial DNA, Y chromosome.

Human Evolutionary Trends –Modern Human, *Homo sapiens* Origin

G. Ashok, Dr. K. Sudhakar

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Abstract:

The aim of this study is to understand human evolutionary trends and origin of modern humans, *Homo sapiens*. Human evolutionary process is too complex to be understood by any one field. At present, we will look at a few major steps in evolution and some of the things affecting human evolution.



The DNA based studies to understand the prehistoric Indian migrations from various parts of the world

Dr. B. Kavitha

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Abstract:

The aim of this paper is to understand the prehistoric Indian migrations with DNA based studies. The peopling of India refers to the migration of *Homo sapiens* into the Indian subcontinent. Anatomically modern humans settled India in multiple waves of early migrations, over tens of millennia. Based on the available studies, the first migrants came with the Southern Coastal dispersal, ca. 65,000 years ago, thereafter complex migrations within south and Southeast Asia took place. After the latest Ice Age, West Eurasian hunter-gatherers migrated to South Asia. Together with a minor number of ancient South Asian hunter-gatherers they formed the population of the Indus Valley Civilization. To understand the migrations happened in the prehistoric period, a group of scholars from different parts of the world led by geneticist David Reich of Harvard University have been doing genomic studies. Apart from their study, published the research article in March 2018 and co-authored by 92 scholars from all over the world - many of them leading names in disciplines as diverse as genetics, history, archaeology and anthropology. The paper summarizes that there were two major migrations into India in the last 10,000 years. The first one originated from the Zagros region in south-western Iran (which has the world's first evidence for goat domestication) and brought agriculturists, most likely herders, to India. This would have been between 7,000 and 3,000BCE. These Zagrosian herders mixed with the earlier inhabitants of the subcontinent - the First Indians, descendants of the Out of Africa migrants who had reached India around 65,000 years ago - and together, they went on to create the Harappan civilization. In the centuries after 2000 BCE came the second set of immigrants (the Aryans or The Steppe population)