

▶ SUMMARY

Bio-archaeologist by training, I am interested in reconstructing palaeoclimate using stable isotope signatures in osteological and macrobotanical assemblages from the Holocene and earlier. When corroborated with modern-day climate assessments, the exercise will yield valuable insights into the relationships between past human societies and their environments for e.g. human diaspora and the spread of agriculture.

▶ EDUCATION

2021— **PhD, Centre for Earth Sciences (CEaS), Indian Institute of Science (IISc), Bengaluru**

Examining stable isotope signatures in gastropod and faunal assemblages from Chalcolithic and Neolithic archaeological sites in India

2018 **MSc Environmental Archaeology, University College London (UCL), UK**

palaeobotany, palaeozoology, geoarchaeology, palaeoanthropology, domestication, evolution and dispersals

Dissertation: *Interdisciplinary approaches to understand early management of *Elephas maximus* for archaeological application*

▶ EXPERIENCE

2020-1 **Project Assistant, Centre for Earth Sciences, Indian Institute of Science (IISc), Bengaluru**

- Examining isotope geochemical signatures in soil samples from the archaeological site of Bharatihuda, Orissa, India (~1600 BCE).

2019 **Trainee, National Centre for Biological Sciences (NCBS), Bengaluru**

- Used satellite images to assess change in carbon stocks in India between 1950 and 2010.

- Assessed environmental services with respect to woodfuel and charcoal (non-industrial roundwood).

Trainee, National Institute of Plant Genome Research, New Delhi

- Trained extensively in wet-lab skills; as in-house project, genotyped transgenic *Arabidopsis thaliana* lines for CNGC19.

Trainee, CSIR-Institute of Genomics and Integrative Biology, New Delhi

- First-hand work experience in genetic laboratory techniques ranging from nucleic acid extraction to sequencing.

- Isolated chromosomal DNA from human blood and PCR-amplified exons of *HNFI1A*. Amplicons were sequenced by Sanger's method and examined for SNPs as part of an in-house study.

- 2016 Volunteer, Rajagala Prehistoric Archaeological Project, Sri Lanka**
- Dry-sieved sediments from trenches and sorted them for lithics, pottery and other artefacts.
 - Conducted flotation for separating charcoal from sediments, which were either sent for laboratory analysis or wet-sieved and sun-dried to sort out lithics.
 - Trained in the fundamentals of using Dumpy Levels and Total Stations. Also contributed to making site maps and writing of the project report.

Intern, National Institute of Advanced Studies (NIAS), Bengaluru

- Corroborated satellite images with historical maps to study past settlement patterns of early medieval Delhi to find structures of archaeological significance.
- Investigated twelfth century temple sites of Badami Caves and Aihole for ground validation of an ongoing in-house remote sensing project.

Volunteer, Narmada Valley Environmental Archaeology Project, India

- Surveyed banks of the Narmada palaeochannel for Acheulian stone artefacts and Pleistocene fossils in the context of fluvial geomorphology.
- Excavated potential Palaeolithic/Lower Pleistocene sites in the modern villages of Panwasa and Bikor, Madhya Pradesh, India.

► **SKILLS**

Archaeological sciences	surveying; recovery, sampling, identification and quantification of macro-botanical and zoological remains; elementary lithics and flint-knapping.
Earth sciences	$\delta^{13}\text{C}/\delta^{18}\text{O}$ determination, soil micromorphology and chemistry
Biological sciences	nucleic acid isolation; primer designing (BLAST); PCR; gel-electrophoresis; capillary sequencing.
Remote sensing	Google EarthPro, QGIS, ArcGIS
Programming languages	R (proficient), Python and MATLAB (elementary proficiency)

► **OTHER ACTIVITIES**

Written 100+ letters/articles in Indian newspapers and magazines on various issues like science, society, politics, economics, literature. Full list of writings can be found at www.ritvikc.com/resume/. Trained in classical music.