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Summary of skills

- **Research:** My primary research interests are focused on *prehistoric and early historic monumental architecture*, as well as *traditional knowledge systems, including astronomy*. My doctoral studies were on the knowledge systems of the builders of the south Indian megaliths. Subsequently I have worked on monuments (prehistoric as well as rock-cut and structural temples etc.) in ancient landscapes such as the Malaprabha Valley, Sannati-Sirival and Hampi-Hire Benakal region. Major contributions from my research has been tracing the strands of continuity between prehistoric and later monumental architecture in the subcontinent, as well as the identification of a class of megalithic sites with definite astronomical alignments built into their layout, and insights into ancient construction.
- **Teaching:** I have taught at Manipal University for 15 years, from 1999-2014. Apart from developing courses and teaching Architectural subjects, I have developed and taught inter-disciplinary courses in collaboration with other departments at the university. I teach courses at the doctoral level at NIAS, on topics related to monumental architecture, field exploration, techniques, archaeoastronomy etc.
- **Architecture and Environmental Design:** I have provided consultancy in the field of architecture and environmental design. Projects handled include residences, apartment complexes, eco-resorts, a research centre etc. I have also worked as an architect for reputed design firms at Bangalore.
- **Writing and Publishing:** I have written and published a number of articles, mostly related to Science, Travel and Nature in newspapers and magazines, apart from technical articles in refereed journals and conference proceedings. Authored two books. Winner of 2nd prize in a national level short story contest.

Areas of Academic Interest

- **Ancient Architecture:** I have studied megalithic monuments in southern India, with an emphasis on the knowledge systems possessed by the cultures that built them. This includes, apart from geometry and engineering skills, possible intentional alignments to astronomical event on the local horizon. An ongoing engagement for the last 5 years has been

the study of landscapes with a long history of human occupation in southern India, primarily near the Aihole-Badami-Pattadakal region, the Hampi-Hire Benakal region and the Sannati-Sirval region, with an emphasis on the location of monuments in the landscape, as an extension of a study I began on a **Homi Bhabha Fellowship (2012-14)**. This study has thrown up leads about continuity in architectural traditions from prehistoric times to later periods – for instance, from megaliths to memorial temples and stupas. I am also engaged in studying evolution of temple architecture, especially the *Karnata Dravida* and *Nagara* traditions. Lately I have been interested in the ritualistic soundscapes of monuments – from Neolithic lithophones and rock gongs to musical pillars in temples.

- **Climate Responsive Architecture:** I am interested in issues like thermal control of buildings, daylighting design and passive design strategies. A specialised problem that I have worked on is the thermal control of observatories for optical astronomy.
- **Sustainability and the Built Environment:** The problem that I have been specifically interested in is the design of facilities near ecologically sensitive areas. I have also been involved in some eco-tourism projects that also involve building facilities near areas of ecological importance.

Education

- **Doctor of Philosophy**

Registration date – *March 2008*

Graduation date – *December 2012*

University – *Manipal University, Manipal*

Guide: Prof. Mayank N. Vahia, Tata Institute of Fundamental Research, Mumbai

Co-guide: Prof. Sudhakara G., Manipal University, Manipal

Ph.D. Topic – *Cosmic Considerations in Megalithic Architecture: an investigation into possible astronomical intent in the design and layout of megalithic monuments of the Indian subcontinent, with a view to understanding megalithic knowledge systems*

- **Bachelor of Architecture**

Graduation date – *June 1993*

Class - *I Class*

Institution - *T. K. M. College of Engineering, Kollam, Kerala (University of Kerala)*

B. Arch. Thesis – *“Observatory for Optical and Infrared Astronomy at Devasthal”*

This thesis was awarded a grant by the STEC (Science, Technology and Environment Committee) of the Government of Kerala for the year 1993.

Honours and Awards

- **Homi Bhabha Fellow (April 2012 – March 2014):** Was awarded the Homi Bhabha Fellowship for the study of “Ancient Landscapes in south India”, which involved study of regions with a prolonged history of human occupation. Primary study areas were the Aihole-Badami-Pattadakal

region, the Hampi-Hire Benakal region and the Sannati-Sirival region, though a few other sites were also visited. These sites have evidence for occupation right from Palaeolithic times to relatively recent times. The study concentrated on locations and layout of monuments in the various periods of occupation. At least at one site (Aihole) the study produced evidence for links between megalithic architecture and later architecture.

- **Prof. D. S. Achyutha Rao Memorial Research Fellowship** for the year 2007-08, awarded for research on the megaliths of south India, with a view to understanding the knowledge systems of their builders through their architecture. Under this study, more than 30 megalithic sites were visited and two new megalithic sites discovered. It formed the nucleus of my doctoral studies.
- Was **part of a team of international experts**, invited by Dr Wei Jian, Dean, Department of History, Renmin University, China, to visit sites in the Youjiang Valley, viz. Gansang, Na-do & Bu-ben, to verify claims of them being part of a megalithic culture during 18-24 June, 2014. Other members of this international team were Prof. Mayank N. Vahia, Prof. Clive Ruggles, Dr. Gail Higginbottom, Dr. Thomas Whitely and Dr. Sheldon Lee Gosline.
- **Sigur Nature Trust, Sigur, TN:** Honorary Advisor.
- **Indian Archaeoastronomy Collaborative, TIFR, Mumbai:** Collaborator in Indian Archaeoastronomy research based at Tata Institute of Fundamental Research, Mumbai, since 2006.

Experience:

Heritage, Science and Society Programme, School of Humanities, National Institute of Advanced Studies

Bengaluru – 560 012, Karnataka.

(August 2018 – Present) Working as **Associate Professor** in the Heritage, Science and Society Programme of the School of Humanities. Earlier (August 2017 – July 2018), worked as **Principal Research Officer**, and as **Research Officer** (March 2016 – July 2017), in the same Programme. Projects initiated and ongoing, as well as concluded, include co-ordinating a multi-disciplinary study of the musical pillars at the Vitthala Temple, Hampi, studies on the megaliths at Hanamsagar, studying the oral history of megaliths among indigenous people, a survey of the Malaprabha Valley, understanding the Indian temple as an imagery of “the cavern in the mountain”, understanding ancient stone-working techniques from studies in Early Chalukyan quarries near Pattadakallu etc.

Freelance consultant and author

Manipal – 576 104, Karnataka

(October 2014 – February 2016) Worked as freelance consultant and author; engaged primarily in writing up the findings of my research on “Ancient Landscapes of South India” as a book for the Homi Bhabha Fellowship Council. I also continued my field trips, extending my research to the megaliths at Mallasandram, near Krishnagiri in TN and Bison Valley in Kerala in this period.

Experience at Manipal University

Faculty of Architecture, Manipal University

Manipal – 576 104, Karnataka.

(May 2013 – September 2014) Worked as **Associate Professor**. Taught at undergraduate and postgraduate levels; was member of Board of Studies.

Manipal Centre for Natural Sciences, Manipal University

Manipal – 576 104, Karnataka.

(March 2012 – May 2013) Worked as **Assistant Professor (Selection Grade)**. Responsibilities included Science Popularisation and assisting the operations of the Dr. T. M. A. Pai Planetarium, Manipal. Prepared exhibits for Science Day 2013, including posters on various themes, an exhibit on archaeological artefacts and an equatorial sundial. Authored a book on comets for Manipal University Press and conducted star gazing and other astronomical events.

Faculty of Architecture, Manipal Institute of Technology

Manipal – 576 104, Karnataka.

(April 1999 – March 2012) Worked as **Assistant Professor (Selection Grade)** since April 1999. Subjects handled include Architectural Design, Building Construction, Climatology, Building Services etc. Developed two elective subjects “*Energy Efficiency in Design*” and “*General Psychology*”. In addition to duties in the Faculty of Architecture, handling classes for M. Tech. (Illumination Technology) at the Department of Electrical Engineering. Set up an experimental low-speed wind tunnel facility at the Environmental Laboratory at the architecture department.

Was involved in Departmental Consultancy for “*Development of Master Plan for the Temple Town of Kollur*”, “*Rejuvenation of Anekere Lake at Karkala*”, as also in own projects like “*Design for Agumbe Rainforest Research Station at Agumbe*”, “*Climate-responsive campus for M/s Karmic Ltd. At Neelavar*”, “*Base-facility for Getooffurass at Bandipur*”, “*Retreat for Sambodh Foundation at Doddabellapur*” etc.

Was Faculty Co-ordinator for The Astronomy Club, Manipal and RedX adventure sports.

Summary of Previous Experience

- **Department of Astronomy and Astrophysics, Tata Institute of Fundamental Research, Mumbai**

Homi Bhabha Road, Colaba, Mumbai.

Was **Visiting Research Fellow** for the period August 2010 – March 2012 at TIFR. Worked with Prof. Mayank N. Vahia on megalithic astronomy and possible observatory structures at Dholavira – a Harappan city in Kutch, Gujarat. Authored a book on megaliths for Manipal University Press during this period.

- **Freelance Architect**

Freelanced as an architect at Bangalore and Cochin during **1997-99**. Projects included private residences and interiors for corporate offices and one multi-storied apartment building.

- **Inter University Centre for Astronomy and Astrophysics**

Post Bag #4, Ganeshkhind, Pune - 411 007.

(1996 – '97) **Project Officer (Architect)** for a project to set up an optical observatory in the Sahyadri Hills. Responsibility included *site survey and selection*, requiring establishment of field stations in difficult terrain, study of micro-climate as well as *basic design of the observatory and associated buildings*.

(1993 – '94) **Research Associate (Architect)** for an *8-month feasibility study for a national high-altitude observatory*. Work involved preparation of *site development plan* for a potential site near Nainital in the foothills of the Himalaya, as well as the *design of the buildings of the complex* to the exacting requirements facilitating the efficient functioning of a modern large telescope.

- **Zachariah Consultants**

33 – 34, Church Street, Bangalore – 560 001.

(1995 – '96) **Architect**, handling design projects independently. Projects handled include two *farmhouses*, two *multi-storied apartment buildings* and one *commercial complex*. Responsibilities included the *development of the designs* for the above, *preparation of working drawings* etc. as well as the presentation of these and other projects by means of *renderings and fly-throughs* using ArchiCAD.

- **Golders Green Marketing Pvt. Ltd.**

40/1, IA Cross, R. M. V. Extension, Bangalore – 560 080.

(1995) **Software Support Executive**, *training* architects to use ArchiCAD – an architectural software from M/s Graphisoft, Hungary. Provided *technical support* to architectural firms using ArchiCAD.

- **Manasara Consultants**

3rd Floor, Jayalakshmi Chambers, 57 Residency Road, Bangalore – 560 025.

(1994 – '95) **Architect**, in charge of the Bangalore branch of this Cochin based design firm. Handled projects, mostly *residences and apartments*, in Bangalore, Goa and Cochin.

(1991) **Trainee Architect**, for 6 months during B. Arch. Course as part of academic requirements. Learnt *cost-effective construction techniques* and attended to site-work. Dealt with *small residence projects* and a *pilgrims' shelter* at Nilakkal near Sabarimala Temple in Kerala.

Other Interests

Astronomy: Deeply interested in Astronomy since my schooldays, I have taken my interest very seriously. I have done astronomy projects whenever I could find time. In collaboration with Dr. Anish Roshi of Raman Research Institute, Bangalore, I worked on a radio astronomy project to attempt to detect a molecular line using the MST Radar near Tirupati, a work published in the *Monthly Notices of the Royal Astronomical Society*. At Manipal, I founded The Astronomy Club, Manipal and have conducted many activities in the popularisation of astronomy, including authoring a popular book on "Comets".

Wildlife: I have visited many of our country's National Parks and have studied the Nilgiri Tahr – an endangered mammal, in some detail at Eravikulam National Park near Munnar. I have also devoted some time to help develop ways and means to reduce human impacts on Protected Areas – including the issue of rehabilitation of indigenous people within PA's. I have designed the cottages for researchers for the Agumbe Rainforest Research Station (ARRS), at Agumbe.

Trekking and climbing: I have trekked and climbed in the Himalaya (Dodital, Darwa Peak, Gaumukh etc.) and achieved a highest altitude of 5819m on Rudragaira Peak in the Garhwal Himalaya in June 2010. I have extensively trekked in the Western Ghats. My long association with Manipal placed me near some lovely wilderness areas to trek in.

Writing: Author of two books, I have published articles in various newspapers, mostly on topics related to architecture, megaliths, science, nature, travel etc. I am also involved in creative writing – poetry and short stories. I won the 2nd Prize in the Sunday Herald Short Story Contest 2008 for my story "The Escape".

Photography: I have a keen interest in photography and am passionate about photographing natural landscapes, wildlife and monuments.

Cricket: Passionate about the game, I was the vice-captain, wicketkeeper and middle-order batsman for the faculty team at MIT, Manipal, from 2002-2009.

(SRIKUMAR M. MENON)