

# Archaeos Mapping Project at Vijayanagara (Hampi), India

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## ABSTRACT

Vijayanagara, which means “City of Victory” was the capital city of the Hindu empire of the same name that dominated southern India from the 14th - 16th century AD. According to the eyewitness accounts of European travelers of that period, Vijayanagara once rivaled the greatest medieval and renaissance cities in both Europe and in Asia in wealth, sophistication and splendor. Sacked and abandoned more than four centuries ago, the current extent of the city’s structural remains appear to closely correlate with the known historical records.

The central city, consists of a fortified royal residential quarter bordered by temple-centered religious communities and occupies an area of some 20 sq. km. It is surrounded by a larger Metropolitan Region that is estimated to occupy approximately 550 sq. km.

In 1986, Vijayanagara was inscribed as a UNESCO World Heritage Site under the name “Unesco Site 241:Group of Monuments at Hampi;” it is also the first site in India to be officially designated by UNESCO as “endangered.” Many of the sacred shrines within the ancient city are still used and maintained for their original purposes of worship, but a large number of smaller, secular buildings have also been reoccupied and used for other purposes such as shops, restaurants, storehouses, and private dwellings. Many ancient building materials have also been removed from their historical locations and have subsequently been reused for newer building projects. Additionally, several partially completed bridges across the Pampa river would, if eventually finished, threaten the preservation of portions of the site by routing large quantities of vehicular traffic directly through the ancient urban core.

Beginning in December of 2000, Archaeos, a non-profit organization headquartered in New York City, was invited by the Vijayanagara Research Project (headed by Dr. John Fritz and Dr. George Michell) and by the Department of Archaeology and Museums of the State of Karnataka to conduct a new series of studies at the site.

At Vijayanagara it is still possible to ascertain not only routes of movement, but also the distribution of buildings, domestic facilities, fortification walls, and gateways. Archaeos’ project utilizes techniques of surface archaeology including digital surveying, CAD, GIS-compatible data collection and other computer-driven technologies for mapping and recording

archaeological information, in order to integrate digital survey techniques with photographic and video documentation. Since the inception of its project at Vijayanagara, Archaeos has focused upon three-dimensionally mapping the remaining portions of two specific areas of the ancient city.

The first area, which is the major focus of Archaeos’ research, lies topographically along a long ridge line that is situated within the fortification walls of the Royal Center. This area, known as the North Ridge, contains the remains of many hundreds of small temples and buildings that have been largely destroyed and have thus far been poorly understood. Along the topographical feature, which has been the area of Archaeos’ primary focus, the results of the project have already conclusively demonstrated that this now largely denuded area—long been believed to have been only sparsely inhabited in medieval times—was in fact densely populated and should hence be considered to have been a central part of the urban core.

The second area in which Archaeos is currently working involves in a smaller project, re-mapping a second area of the city known as the Noblemen’s Quarter. Excavated by Indian archaeologists, the Noblemen’s Quarter provides an important opportunity to better understand the spatial organization and functioning of a series of elite, interrelated building complexes by means of using modern CAD and surveying technologies.

At this time, it is uncertain how agricultural, economic, and population related pressures will ultimately impact the future of this historical site. These are ultimately questions that the Indian people and their regional and national governments must decide for themselves and to in any way suggest otherwise would represent a violation and lack of respect for India’s government, its people, and its democratic process. Any such stance would also ignore the problems that India faces as it attempts to balance the preservation of the its rich and ancient cultural heritage with the pressures of an ever expanding human population that must rely upon a constantly diminishing set of natural resources for their survival.

Given such concerns, Archaeos is in no way actively involved in implementing, lobbying for, or suggesting solutions to questions of cultural management at Vijayanagara, or at any other world site. Instead, the research organization’s primary aim is to record, process, and model as much of the remaining archaeological material as is possible with its currently limited resources, so as to preserve some record of areas of the site such as the North Ridge, while such a study is still possible.

Our submission to the UNESCO World Heritage Convention, Heritage Management Mapping: GIS and Multimedia Conference presents recent documentation of Archaeos’ on-going research at Vijayanagara. This is a multi-media project which incorporates CAD map files, video, text, and QTVR’s, and is initially being submitted in the form of a URL. A DVD-ROM can also be made

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available. In addition to the website devoted to the education-based publication of this work, it includes 3-D modeling of the site's endangered cultural remains, and a 13-minute digital video entitled Vijayanagara: the "City of Victory," Part 1: Mapping the Surface, which documents and contextualizes the continuing research. Please see for further background information about the site and the mapping project.

**Keywords:** Vijayanagara, Hampi, Archaeos, mapping, cartography, archaeology, CAD, QTVR, multimedia, India, Indology, digital survey, endangered cultural remains.

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Founder and President of Archaeos, a non-profit organization in New York City dedicated to archaeological research and education. Currently the Director of the Archaeos Survey Project at Vijayanagara, India. D.Phil. from the Faculty of Oriental Studies, Oxford University; M.A. in Art History and Archaeology from the Institute of Fine Arts, New York University; studies in archaeology, ancient languages and art history at Harvard and Columbia University. Taught Syrian archaeology at the Oriental Institute of the University of Vienna and co-directed Archaeos' joint archaeological excavation at Tell Arbid, in Syria, with that same institution. Primary research areas include early city planning, mud-brick architecture and theoretical approaches to archaeology, especially those applicable to the examination of the creation of the early writing and pictorial systems of

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