Imagine my delight when I got to interview Bangalore-based designer Mohan Rao of Integrated Design (ID), whose small, multidisciplinary firm is now working on a sustainable restoration scheme of the reservoirs around the small but legendary town of Hampi, in the Indian state of Karnataka – a World Heritage site and certainly one of most magical places on the subcontinent and where the surrounding ruins mark the historical location of the fourteenth-century South Indian empire of the Vijayanagara.

Firms such as Rao's in India are interesting because they present alternative methodologies in an already-blossoming sustainability movement in India – synthesizing and building upon traditional/historical experiences with modern, holistic know-how to address problems of conservation and heritage preservation.

In a nation where each new, big hydrological dam spawns more environmental and social problems than it solves, Rao is busy challenging large-scale methods of resource management and hydrological restoration with alternative, sustainable and small-scaled approaches of revitalization in Hampi. Rao also recently finished up some disaster management consulting on the Nicobar Islands and an urban habitat project in Morocco.

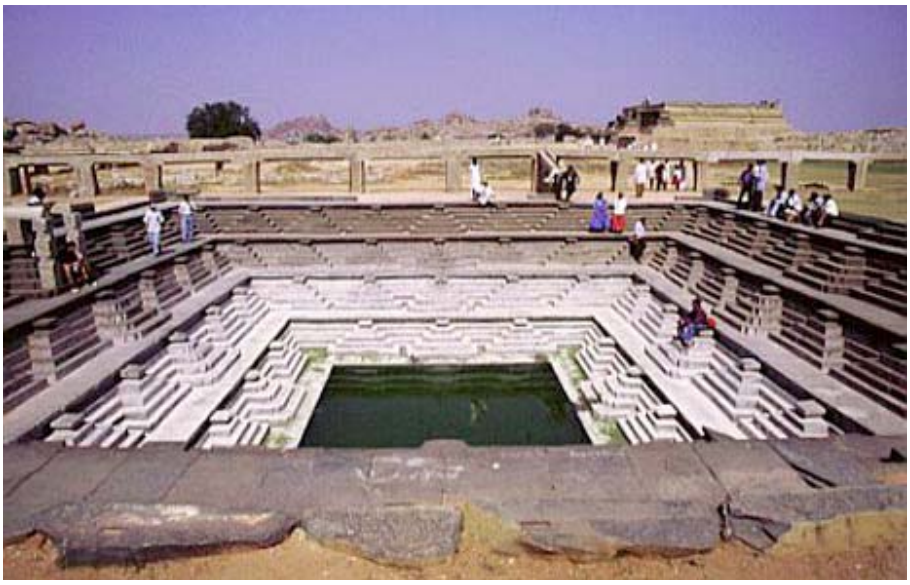

Photo: Temple Water Tank

Treehugger: Could you give us a little information on your background and why you started Integrated Design?

Mohan Rao: I am originally from Bangalore, but I've worked and travelled around a lot. I received the conventional bachelor's in architecture and a master's in landscape from School of Planning & Architecture at Delhi. After a few years of working in architecture, I was rather disillusioned with it and started ID as a conventional landscape design firm – but also quickly became disillusioned with that as well. That's because in conventional design, everyone has strict lines between architecture versus landscape versus engineering versus site management that you are not supposed to cross. That's why ID is a little harder to pigeon-hole because we do it all – we do a little bit of architecture, a little bit of landscape, some resource and site management and hydrology here, and sustainable restoration and consulting there.

TH: What is your focus now in the context of projects that you are currently involved with?

Rao: We have a few points of concentration now: one of them is water; another is site management, especially on smaller acreages (usually two to three); and another focus is the role of sanitation cycles. The

last few years we've gotten involved with on-site heritage restoration and resource management at the city level.

TH: Could you describe the Hampi heritage restoration initiative and what is ID's role within that?

Rao: Though I've been working in some capacity with the initiative for the last 20 years, it is the only last five or six years we became formally involved with the archaeological survey taking place there. We were asked to do the landscaping for the gardens, which attract a great number of tourists annually – but eventually it became more than just a superficial greening when we got really interested in investigating how the old empire of the Vijayanagars (1336-1646 AD) dealt with water issues in what was a very dry area. For the last 300 years the Tungabhadra River was never touched – so how did the empire get its water? So we started learning about traditional ways of rainwater harvesting and storage and came up with some very interesting findings.

We unearthed small percolation pits, detention ponds, swales and valleys which were all part of a system ensuring a year-round supply of water in the historical city of Hampi, which had about 600,000 inhabitants at that time. We were working to understand how the water supply system worked, with wells and pipes all working energy-free and integrated that awareness into our efforts.

TH: How do all these lessons from Hampi apply to current water scarcity issues in the region's cities?

Rao: Well, today's Hampi offers many lessons for huge living cities such as Bangalore. Over the last five years, globalization has overtaken Bangalore, with obvious things such as traffic congestion increasing eight to tenfold. It's one of the few cities in the world that has no sizable natural water source nearby and for the last 300 to 400 years it was necessary to build small water tanks at 50 to 100 acres in size. Lakes in Bangalore used to number around 200, but none of them were large enough to satisfy Bangalore's present demand and right now water is being pumped from 100 kilometres away. So you have these water issues that not only find their roots in history but also in the geography of the region.

Lake revitalization is usually seen as an engineer's domain: taking out muck, building retaining walls and beautifying it with gardens. However, instead of addressing the real problem, which is not the lake itself but the quality of runoff, land use, management and so on – you can start treating it as a natural resource which has a larger bearing on the environment – it's not just something on the map – and start from there instead.

TH: What specific measures and methods did you employ then?

Rao: We started by cleaning up and controlling the inflow using passive and biotic methods, using plants that will clean up the water, for example – as the inflow determines whether the lake will live or die (due to influx of pollutants, organic matter, etc.). We did not use any kind of machinery, and this is basic hydrology and traditional wisdom across the world.

Next, using micro-catchments are the way to go, as they are cheap, need no energy to run and don't displace people or submerge forests. Everyone wants development but that doesn't mean you accept every technology without question.

See also ::India Water Portal, ::List of Dams in India, ::International Rivers, ::Ancient Sites of Hampi, ::Hampi: The Legend That Time Forgot