

THE CROSSING

**Living, Dying and
Transformation in Banaras,
A Multimedia Cultural Learning Project
For the next Millenium**

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1.0 INTRODUCTION

In traditional societies a pilgrimage provides people with a setting for reflection, learning and inner transformation. A pilgrimage provides the setting as well as a space for the movement into the Center, which reflects the relation of the individual and the Whole. The physical center is invested with cosmic significance, and hence the pilgrim undertakes a journey in both physical and symbolic space, which permeates a sacred presence.



Figure 1. Pilgrims at Haj; Forests, mountains and rivers serve as power places, which through time become pilgrimage sites.

A pilgrimage site is called, *tirtha*, (in Sanskrit) meaning a ford across a stream, and by extension a cosmic crossing point, and sacred place for transformation.

Each center, whether Banaras in India, or Jerusalem in the West, or Mecca, are crossing points, that provide people with potent, living symbols of the relationship of Man to the larger Cosmos, life and death, matter and energy.

1.1 BANARAS

The city of Banaras, like Jerusalem and Mecca, is one of the world's most celebrated pilgrimage sites, and has been acknowledged as a center of learning for over 2000 years. As a physical place, Banaras lies on the banks of the river Ganges. As a psychical place, the city derives its sacredness from its intimate association with Lord Shiva (one of the three main deities of the Hindu trinity). It is believed that Shiva lives in Banaras through his invisible form to liberate humankind from ignorance.



Figure 2. Banaras, the city by the river of Healing, Ganges, originates in the mythology of Shiva.

"There is little in the world to compare with the splendour of Banaras, seen from the river at dawn. The rays of the early morning sun spread across the river strike the high banked face of the city called Kashi – the Luminous, City of Light. The temples and shrines, ashrams and pavilions that stretch along the river for over three miles are golden in the morning. They rise over the high riverbank and cast deep reflections into the waters of the Ganges" (Eck, 1983)

Banaras has over 2000 temples, big and small, dedicated to Lord Shiva and to other deities. The skyline along the riverbank is marked by high spires of temples. According to a myth, Lord Shiva performed severe austerities to sanctify Banaras, and considers Banaras his earthly home. In the imagination of the people in Banaras, Shiva is visualized as an ash-smeared yogi who is meditating in the cremation grounds and eternally bestowing grace and liberation on his devotees.

The interface between the city and the river are the long flights of stone steps called ghats. There are over a hundred ghats in the city, and the ghats hum with ritual and festive activity all the year round.

From dawn to dusk, thousands of worshipers come down to the river to perform ablutions, and through ritual and prayer, invoke the healing powers of the Ganges. The rituals involve all the sense perceptions – sight, sound, touch, smell and taste – and invoke all the elements. People propitiate the Ganges river, the river of healing, by floating lamps and offerings.

Some of the most important rituals relate to the dying and the dead. The ghats provide the places of cremation. The burning embers of the cremation pyres

alongside the riverbank provide people with a powerful symbol of the integral relation between life and death. Death in the Indian imagination is considered as a crossing over from one state into another; and the fear of death is considered to be an irrational fear. Once the body disintegrates, the ashes are immersed into the Ganges. The final immersion into the womb of the Ganges symbolises a new creation out of the waters of life.

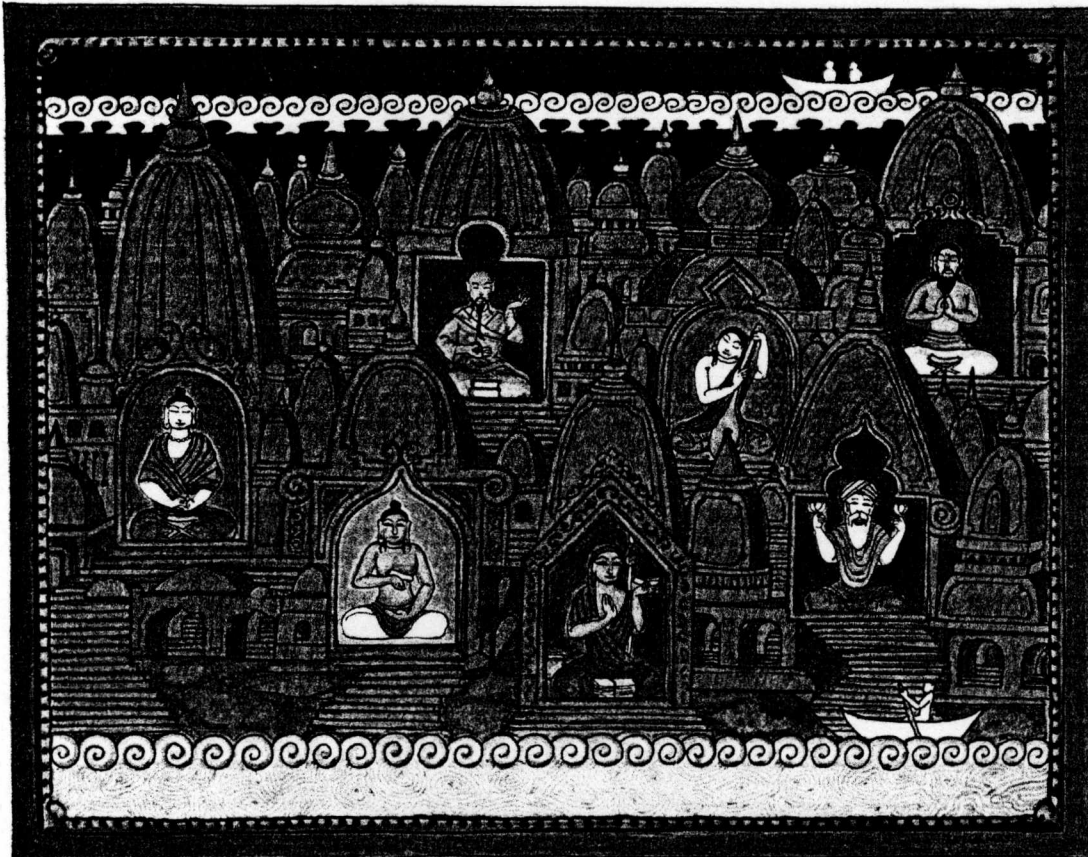


Figure 3. Banaras' many visitors include the Buddha, Sankara (founder of the philosophy of Non-Dualism), Mahavira (founder of Jainism), Guru Nanak (the founder of Sikhism), the poet Kabir, the poet Tulsidas, and the Chinese Traveler Huan Xang,

For 2000 years, Banaras flourished as a living center for learning. The Buddha, Adi Sankara, (the founder of the philosophy of Non-dualism), and Mahavira (the

founder of Jainism), pondered life's fundamental questions. Atop the ghats, in the pavilions, gurus continue to transmit to students the living experience of self-realization. Besides the religious significance, Banaras is the home of classical music, dance and textile traditions. Banaras artists have developed distinctive genres of artistic expression. The sounds of the drummers and dancer's bells provide an aural backdrop to Banaras.

The ghats present an incredible "multimedia" theater of activity. Together, the river Ganges, the temple spire-lined skyline, the pavilions of learning, pilgrims performing rituals, and the fires of the cremation provide a multimedia, living stage in which the pilgrim experiences transformation. These elements make the ghats an excellent domain for multimedia applications in learning. The pilgrim is the center of the transformation, and the ghats provide the "periphery" (Brown and Duguid, 1993). Banaras's ghats and its activities provide the spatial periphery; the myths and metaphysics of Shiva provide the psychical periphery.

Together, the spatial and the psychical settings allow the pilgrim to "cross over" into the space of transformation.

2. 0 The Crossing Project

We are applying PARC's decade of multimedia expertise in cultural learning to build a museum exhibit that will let people connect to the living culture of Banaras. The exhibit will focus on the re-"presentation" of the physical and the psychical dimensions of the living culture on the ghats of Banaras.

The ghats provide an ideal setting for cultural learning. The exhibit will allow the learners access into Banaras' world of transformation. Hence the project is titled "The Crossing". Through the design of physical and virtual multimedia learning spaces and through live, real-time, multimedia connection to the ghats, as well as

interpretation by scholars, mystics and ritual specialists, the exhibit will immerse learners into the transformative setting of Banaras.

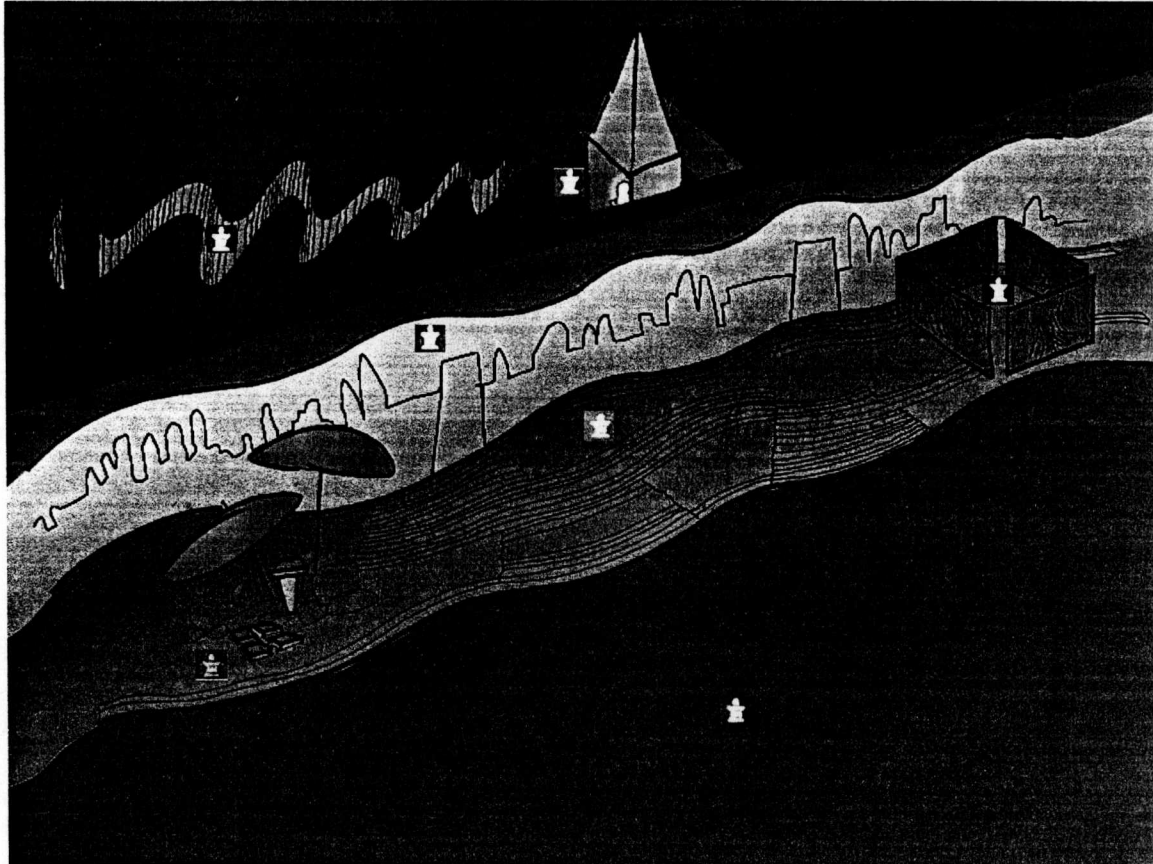


Figure 4. **Perspective view of the Crossing exhibit showing the exhibit conceived as a collection of physical and virtual learning spaces.**

3.0 RESEARCH DIRECTIONS

Undoubtedly, multimedia-based cultural learning tools have become commonplace in the museums and classrooms. Therefore, what are some of the unique thrusts of the proposed project, in terms of the multimedia design and learning content?

3.1 *Correlating Learning Spaces with Physical Spaces*

Through a decade of work at PARC in active learning (Makkuni, 1989; Makkuni, 1993), we have been re-questioning the basic form of a computer-based tool, i.e. the hardware forms of television screen, typewriter keyboard and mouse, and the software forms of 'windows' and button-pushing. The computer media eliminates physical space and Man's 'physicality' in the act of communication. Because human transformation involves physical and symbolic movement, Banaras's spatial context of the river, e.g. spire – lined skyline, the steps to the river, demand re-"presentation" in the proposed exhibit. Hence the exhibit will incorporate both virtual access and spatial design.

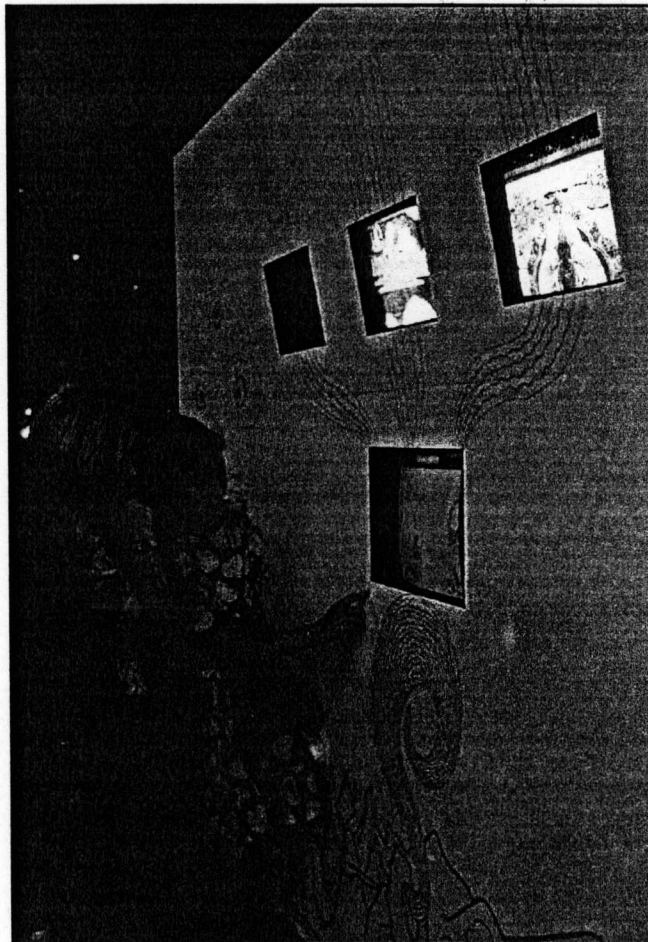


Figure 5. **The Electronic Sketch Book of Thangka Painting.**

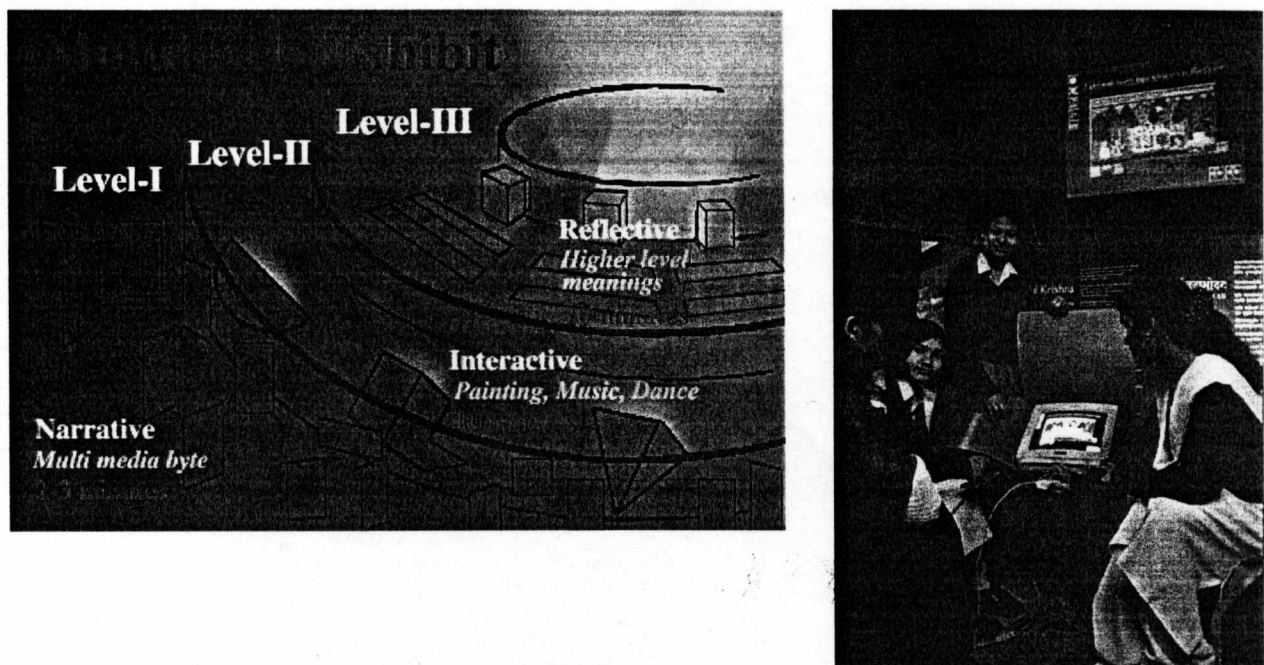


Figure 6. **The Gita-Govinda Multimedia experience.**

Our past exhibits on Thangka painting and on the Gita-Govinda love poem have begun to explore “embodied virtuality”. In the Thangka exhibit, the display screens of Thangka imagery are embedded in a representation of a temple wall, and hence, the screens framed in the periphery of the wall, provide a field for the museum learner to enter into the Thangka painting space. Similarly, mirroring the multiple levels of meaning and expression of the Gita-Govinda poem, the Gita-Govinda exhibit re-“presents” the learning spaces of the poem in three concentric rings. Much like the experience of circumambulation of a traditional temple, the learner moves from the outer narrative level of the poem, to the middle interpretative level, and ultimately to the inner reflective level of the poem. The Thangka and Gita-Govinda exhibits illustrate initial design attempts that correlate physical spaces with learning spaces. We wish to extend the methodology developed in these to represent Banara's ghats, its distinctive river-line and skyline

3.2 *Beyond Presentations on Rectangular Monitors*

We must challenge the customary notion of a multimedia presentation as being only concerned with the display of objects on a rectangular display screen. Banaras's settings challenge us to broaden our notion of a display screen-based presentation to include the overall environment including architectonic space, backdrops, lighting systems, aroma and wind effects. Building the elements of such a rich presentation will advance the field of the design of learning environments.

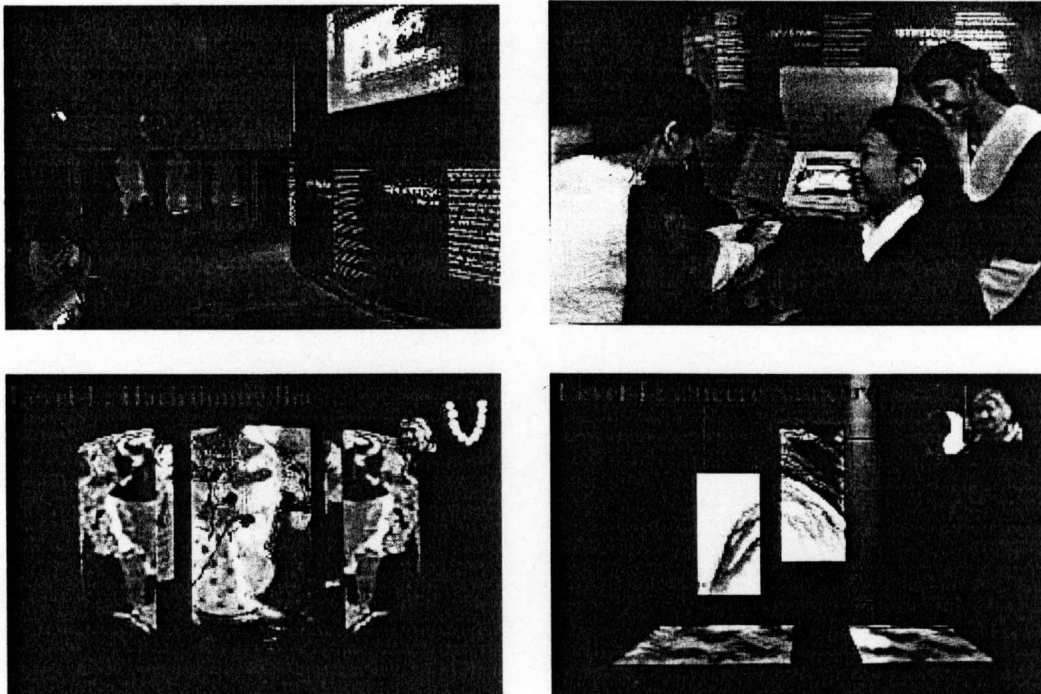


Figure 7. Immersive learning spaces.

3.3 *Live Connection to Cultural Practice*

In terms of the learning content, multimedia presentations typically present pre-recorded imagery, and pre-recorded commentaries. Because of the living – daily, seasonal and annual – rhythms of Banaras, the exhibit will explore how the learner can connect 'live', directly to the priest in the Shiva temple, the pilgrims on the ghats, the boatman in the river, the gurus in the pavilions, and the musicians and dancers in the schools. Of course, interpretation and scholarship

will be available to the museum – goer, but our primary focus is on accessing living culture.

3.4 *Physical – Virtual Interface*

Immersion into the symbolic spaces of Banaras is a two-way, interactive process. In any ritual space, objects and offerings are first defined, assigned with meaning, and the devotee places herself in relation to the symbolic world, and invokes transformation. Hence, from the context of the Ganges, the river of healing, the floating of lamps and offerings are important ritual events.

Therefore, the project will explore how museum learners, although separated by thousands of miles, can obtain an experience of the spiritual life of Banaras – the waving of lamps in the temple, the floating of the lamps and offerings to the river of healing. Hence, we face the technical challenge of projecting a spatially distributed pilgrim into the spaces of the ghats, e.g. how can we develop tools that will, for example, allow an American museum – goer to float flowers in the Ganges, and receive the results in America. These issues challenge the design of the physical and virtual interface.

3.5 Interactive Accessories, Take-Home Memory Aids

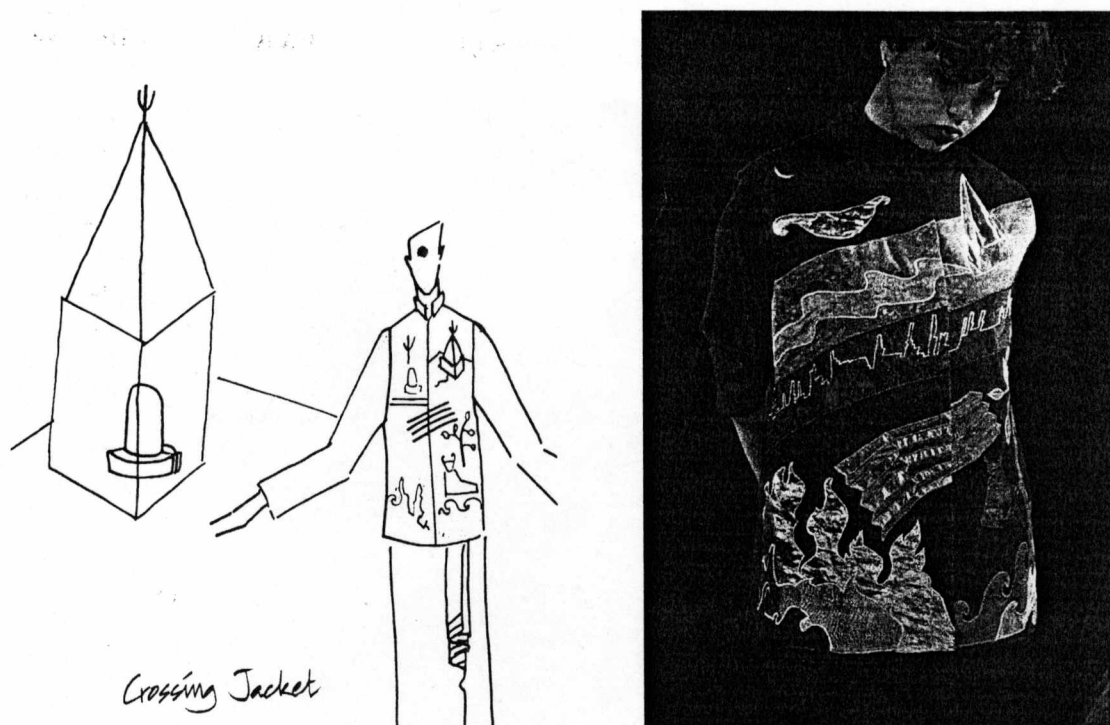


Figure 8. **User interacts with Crossing content through interactive jacket with embedded computing technology. Clicking on the hotspots on the jackets allow user to play back multimedia imagery.**

Multimedia technology has become ubiquitous and has become commonplace in the classroom and the home. However, as the learning content becomes more and more digitally based, people are losing touch with the physical dimensions of the world, especially the sense of touch, and the role of the body in the act of learning and in the act of communication.

To provide kinaesthetic based interactions with the Crossing content involving the whole body, the project is designing a range of high-touch interfaces, such as computer based clothing and craft objects through which the learner accesses the Crossing content. Symbols and images on the clothes allow the exhibit goers to access, retrieve and manipulate the Crossing content. These new interfaces hence serve as both a tool of interaction as well as a memory aid of the Crossing

spaces. The exhibit goers can take the clothing and objects home to and these objects can remind the exhibit goers of the powerful learning experiences in the Crossing.

3.6 The Integral Relationship of Life and Death, the Individual and the Whole

The underlying content of the project is most relevant to Modern Man. The universal fear of death has inspired people of all cultures to ponder over the phenomenon of Death and its relationship to life and after-life. The Banaras ghats present a potent symbol of the interplay of life and death. Understanding life in relation to the peripheral presence of death can contribute to transformation and healing.

One of the challenges facing modern society is the relationship of the individual to the whole, between people and communal memory and between people and the idealizations as provided in the myths of a culture. the internet, perhaps reflects modern computer society's yearning for the collective. The proposed project explores cultural learning tools that allow people to understand the relationship between the individual and the Whole. *Technology, if it has to be meaningful, must respond to these perennial issues of Man.*

Acknowledgment

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Thankga project credits: Ranjit Makkuni, director; Lama Wangyal , Thankga painter; Terese Bartholomew & Richard Kohn, Tibetan scholars; Axel Kramer, software design; Mark Chow, video production.

Gita-Govinda project credits: Kapila Vatsyayan, Gita-Govinda scholar; Ranjit Makkuni, multimedia design; C. Venkatesh & Manav Sehgal, software programming; Papiha Saha & Yatish Jain, graphic design; R.Sarath, video production; Amar Behl, installation design.

Crossing project credits: Ranjit Makkuni, director; Madhu Khanna, scholar; Abha Gupta, Deepa Verma, Tanvir Ratti, accessory design; Shivanee Dutt, textile design; Tania Sengupta, installation design; Anuj Gujar, Roy Want, Beverly Harrison, Ken Fishkin, Bill Jansen, PARC extreme UI technology.

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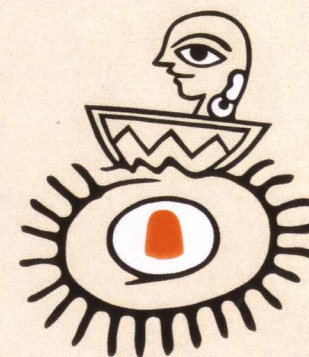
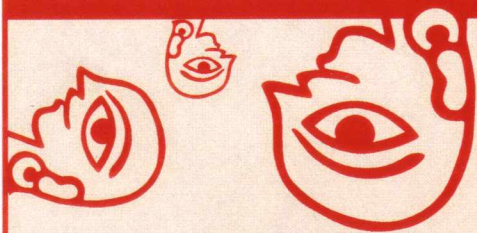
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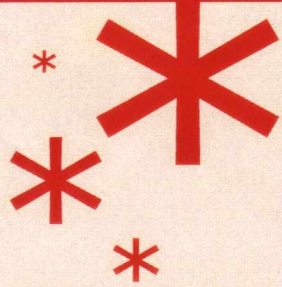


the crossing project

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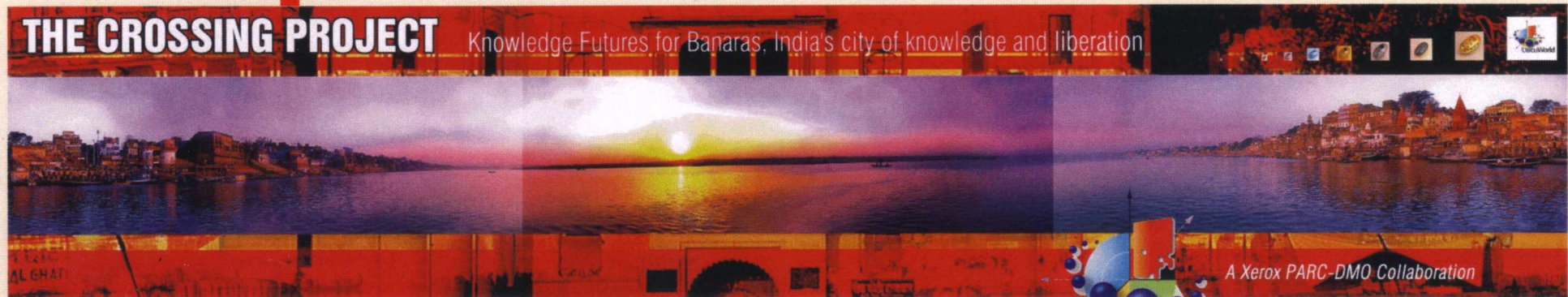
■ banaras

■ Living, Dying and Transformation

a presentation

the crossing project

introduction



A Multimedia Experience Exhibit showcasing state-of-the-future Documents applied to India's city of knowledge.

Spanning a rich space of expression ranging from "ritual to robotics," The Crossing Project presents new idioms of Indian creativity, combining culture and technology, and presents a new language of interaction design for the world, termed the "Living Document." Comprising of Rickshaw wheels that you can play with to produce sitar music, to e-jackets that you can click on to experience Yogis' states of meditation, to e-pots that you can hold to learn about the creation myth of the Ganges, to hi-touch interfaces integrating traditional art and crafts.

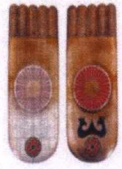
Throughout the world, lakes, forests, mountains and rivers have been seen as 'power spots' and concentrations of nature's energies. Gradually mythologies grew around these spots, and the union of myth and place creates a sacred geography.

Banaras – Kashi, the oldest living city in the world is described as a microcosm of Indian Civilization. The multiple richness of Banaras invokes many different interpretations. The most significant of them is that Banaras is regarded as the greatest of all Tirthas, a Crossing place, a 'transitional zone' to cosmic reality and a portal of spiritual liberation. The countless myths, symbolic meanings, philosophical interpretations, and patterns of collective memory that have accrued around the city have given Banaras a distinctive personality, a city which englobes the whole of existence. It is a place where life is relished to the fullest, and fear of death is conquered, and where many choose to die to attain spontaneous liberation. The unique context of its past and its living present makes Kashi the most appropriate subject of exploration for future technology.

The Crossing exhibit consists of a collection of installations and interfaces that allow one to experience and access the multi-layered spaces of Banaras and Kashi. The project is directed by Ranjit Makkuni, Xerox PARC researcher and Principal Investigator, Active Learning Project, with the participation of Dr. Madhu Khanna, Project Scholar, and a team comprising of India's top scholars, artists, craftspersons, computer researchers and designers.

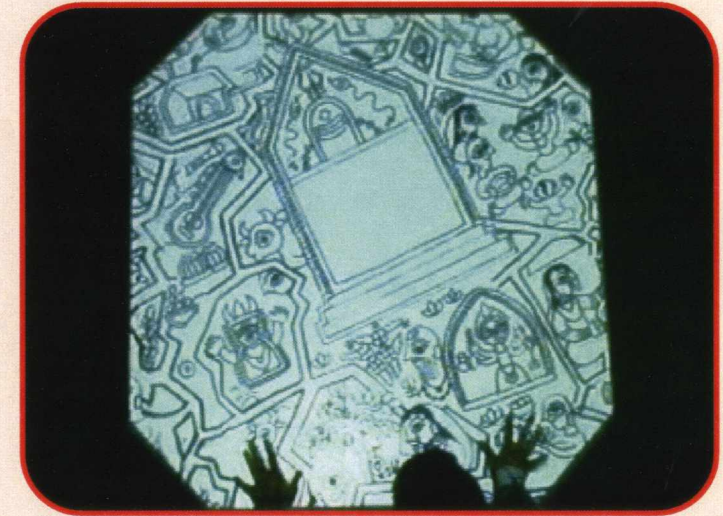
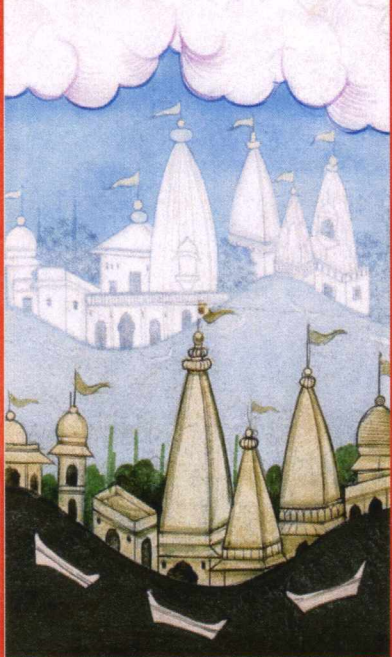
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exhibit



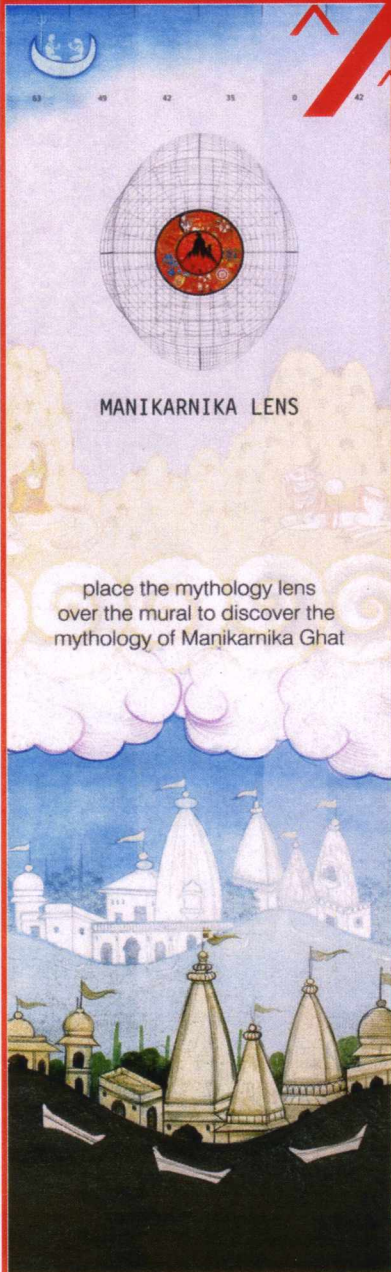
HI-TOUCH FOOTPRINT

touch the footprints to learn
about the contributions of gurus,
sages, pilgrims and travellers



the crossing project

products



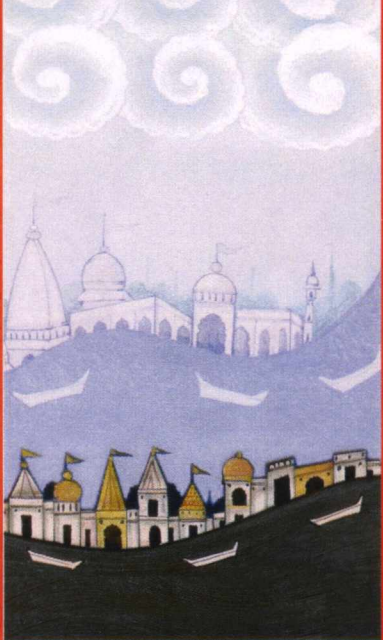
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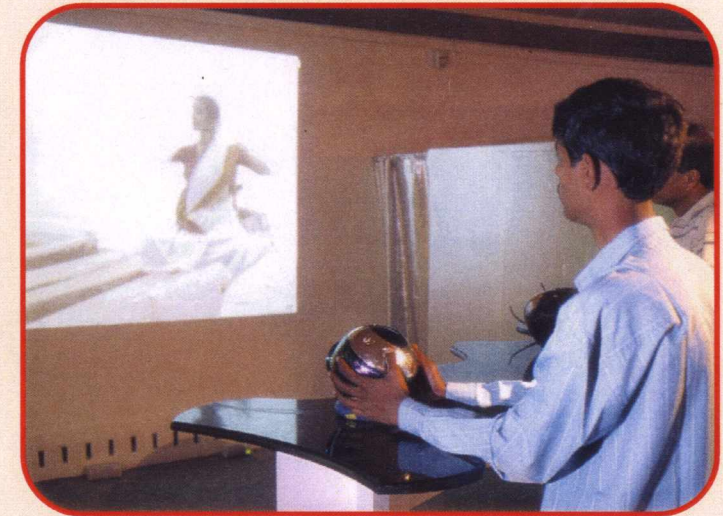
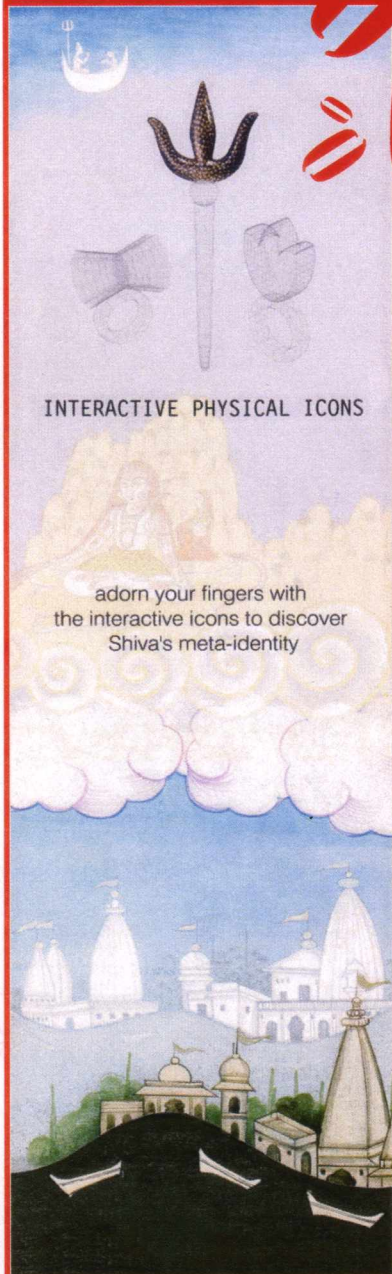
E-SHIVA EGG

hold the E-egg in the
palm of your hands to learn
about Shiva's multiple forms



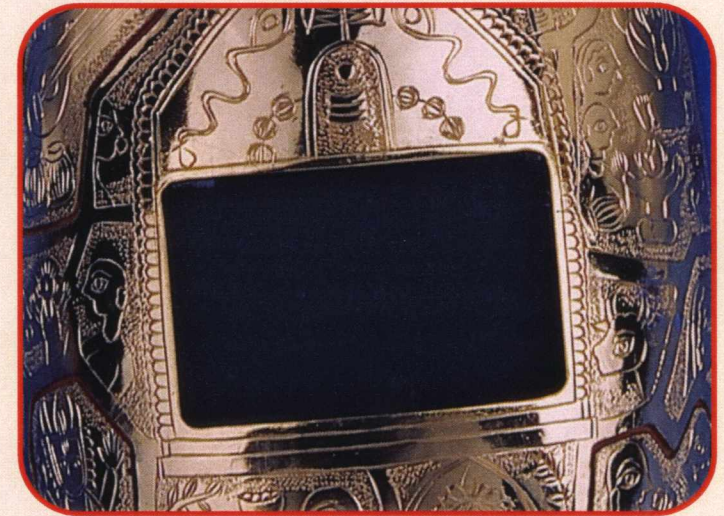
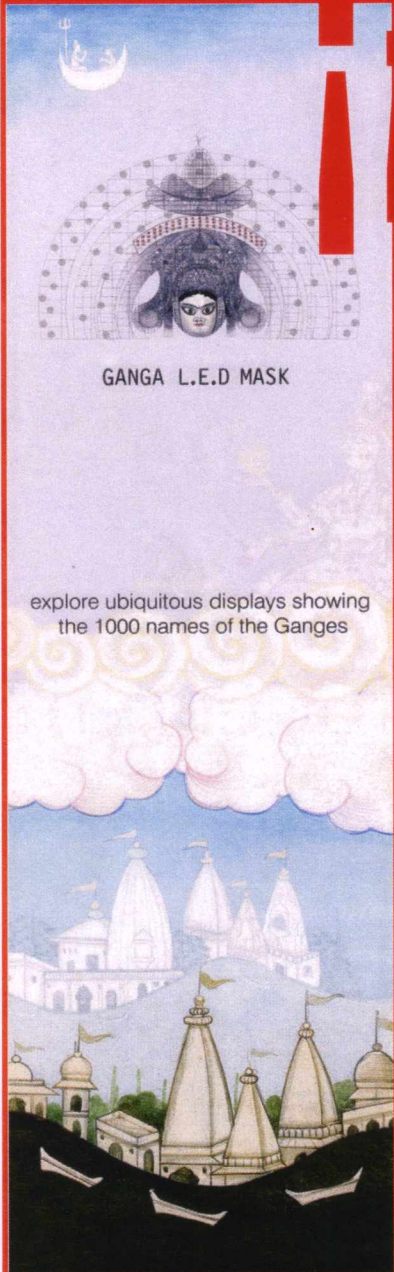
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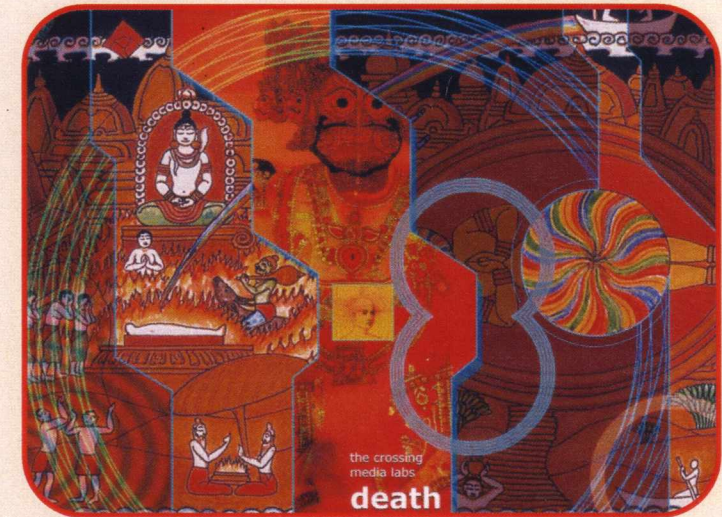
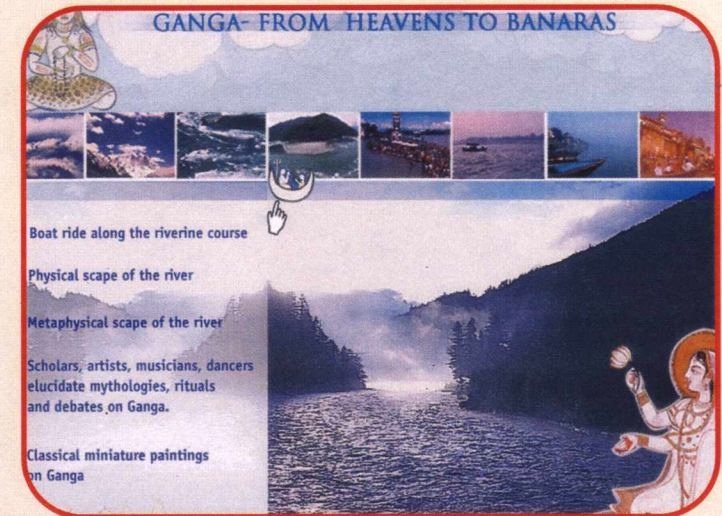
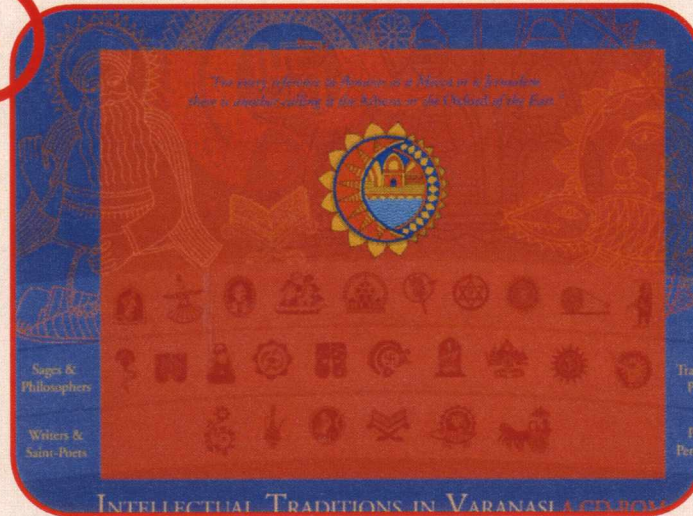
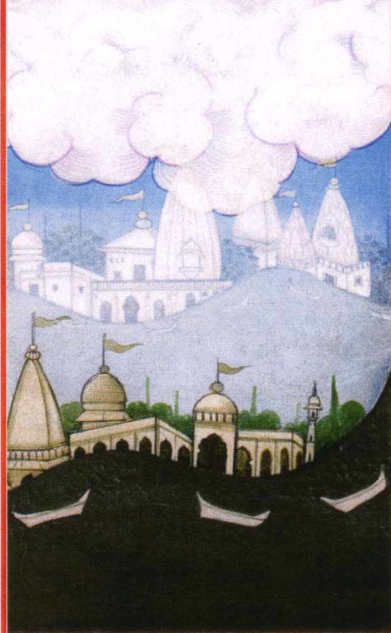
the crossing project

cd-roms



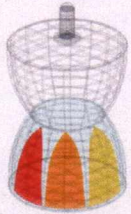
DASHASHWAMEDHA LENS

explore the sacred landscape
of the Dashashwamedha Ghat



the crossing project

exhibit



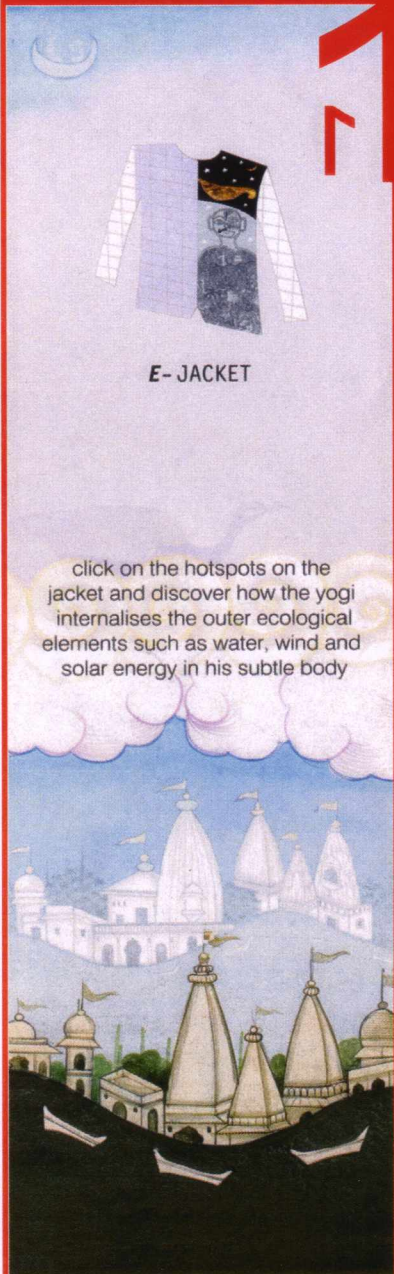
E-DAMARU

rotate the rings on the Damaru
to explore Shiva's multiple forms



the crossing project

products



the crossing project

cd-roms

