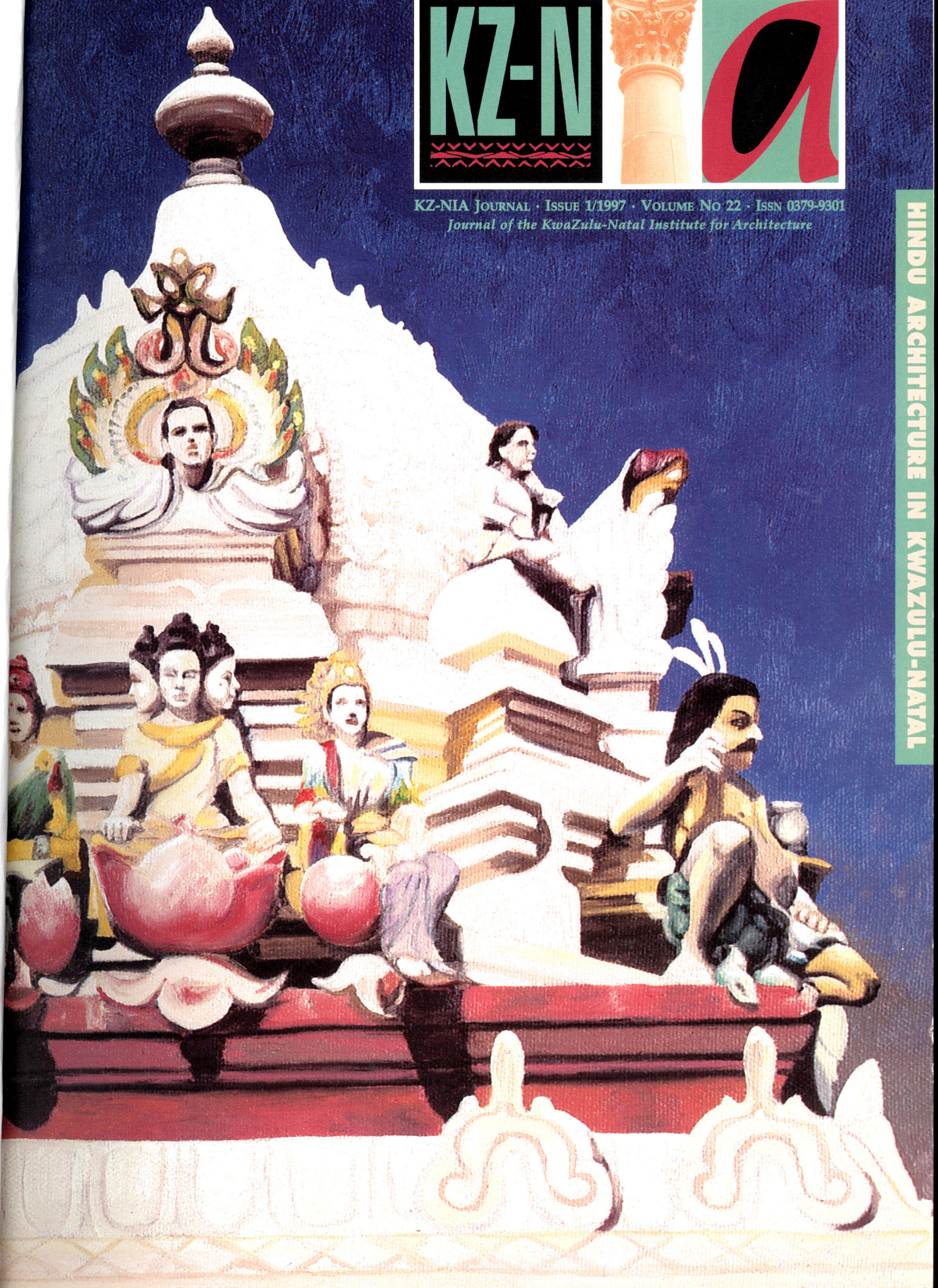


KZ-NIA JOURNAL · ISSUE 1/1997 · VOLUME No 22 · ISSN 0379-9301
Journal of the KwaZulu-Natal Institute for Architecture

HINDU ARCHITECTURE IN KWAZULU-NATAL





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Corobrik Architectural Student of the Year

The recipient of this prestigious award for 1996 was announced at a function held in Durban on Friday, 7 March. National Winner of the R20 000 prize, is Andrew Palframan of the University of Port Elizabeth, for his design thesis entitled *A Place of Being and Memory*. The Supplementary Prize of R5 000 for the project which best incorporates the use of clay masonry, was awarded to Kobus Botes of the University of the Free State for his thesis entitled *Architecture and Transcendence, a home for Stephen Hawkins*.

GLOSSARY OF TERMS

- ashram** monastic retreat
 - chattra** honorific parasol, hence
 - chattri** canopy or kiosk
 - garbha-griha** literally 'womb chamber', innersanctum of temple
 - gopura** gatehouse to temple
 - karma** the wages of former deeds – merit or de-merit
 - mandala** magical diagram
 - mandapa** hall or pillared pavilion
 - mandir** Reformed Hindu places of worship (Diesel)
 - mantra** magical formula, incantation
 - moksha** liberation or release
 - mukti** salvation
 - pradakshina-patha** circumambulatory path or passage around a shrine
 - shastra** traditional science, theoretical treatise
 - shikhara** northern temple superstructure, crowning 'cupola' of southern works
 - vastu** residence, hence vastushastra, traditional science of architecture and
 - vastu-purusha-mandala** diagram for the residence of the Purusha, the formula for sacred building
- Reference: Taddell, C. *The History of Architecture: India*.

NSA Gallery Architects acknowledged

The Architecture Foundation, London, recently invited submissions from practices comprising principals who are under the age of 40 for inclusion in its Directory of Practices. (*Architects' Journal*, 6 February 1997). Among the 50 chosen is that of Walters & Cohen! *Congratulations, Editor.*

This journal, now in its 22nd year of publication, has since its inception been sponsored by Corobrik.

Guest Editorial

Hinduism is preoccupied with the pursuit of *moksha* – which is the liberation of one's soul from the cycle of recurring birth and death. To aid one along this path, there are a host of gods and goddesses that are honoured, all of whom are manifestations of the one Supreme Being. In the history of Hindu culture, architecture, painting and sculpture are almost exclusively vehicles for the expression of religious feelings. Consequently, we have chosen the temple to attempt to illustrate the philosophy behind building form in Hindu architecture.

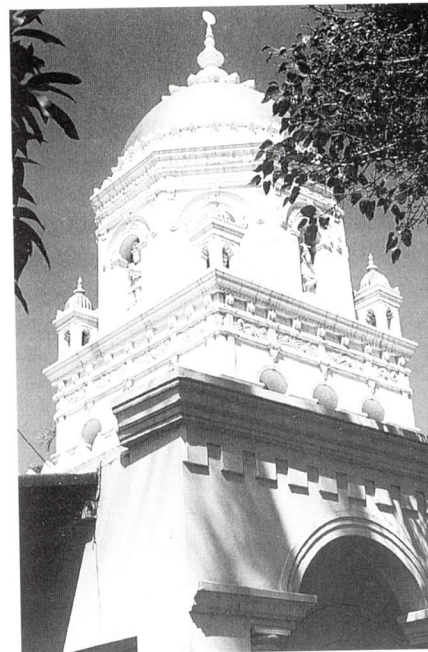
Temple design concepts were brought to South Africa by the founding members of the Hindu community, beginning in 1860. Today these concepts remain alive, and inspire the re-interpretation of major new temples completed and proposed, as illustrated in this issue. I wish to thank all contributors for their enthusiastic response.

Rani Naiker, Guest Editor

Ms Naiker commenced architectural studies at the University of Natal before proceeding to the University of Cape Town, where she graduated. She is a partner in the Durban-based practice Om Moodley & Rani Naiker Architects which was established in 1989.



COVER: Oil on canvas painting by Aidan Walsh of the Umbilo "Second River Temple, Bellair, Durban". Reproduced with the kind permission of the artist.



The Hindu community in KwaZulu-Natal is the second largest outside of India, with a present count of somewhat more than half a million. (The largest diaspora Hindu community is the Malaysian.) Hindus started arriving in the colony of Natal from 1860, as indentured labourers to work on the sugar estates of the north and south coasts. These people were followed about ten years later by groups of immigrants who became known as "passenger Indians" because they were able to afford to pay their own fares, and they held British title documents. The majority of the early indentured labourers were from south India, from the Tamil and Telugu speaking areas around the city of Madras. (Tamils still make up the majority of the SA Hindu community). Later ships were to bring Hindi speaking labourers from the northern areas of Bihar and Uttar Pradesh. Many of the passenger Indians were Gujarati speaking from the Bombay area and Gujarati. Altogether approximately 150 000 indentured labourers were brought to Natal during the fifty year period from 1860–1911.

Early Temples

In spite of their miserable working conditions these immigrants continued their traditional worship, and very soon began building shrines and temples dedicated to their favourite deities, particularly those of the south Indian folk tradition (Freund: 1995).

After the expiry of their indentures the majority of labourers chose to remain in Natal, moving into Durban and the surrounding areas, where many took up market gardening, or domestic work. Others found employment in the Durban Municipality in various forms of agriculture, in the Natal mines, and in the Natal Government Railways with many being involved in building the railway line from Durban to the Transvaal. This meant that very soon Indians began moving



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Hindu Architecture in KwaZulu-Natal

Hinduism in KwaZulu-Natal

into the Natal interior. It is probable that the first Hindus arrived in Pietermaritzburg from about 1863, where they settled in lower Church and Longmarket Streets (Diesel & Maxwell: 1993,5-6).

Wherever the Hindu community settled, places of worship were very soon erected. In Durban in the 1880s the municipality housed thousands of Indian workers in the Railway Barracks and the Magazine Barracks, and three temples were built to cater for their religious requirements. Unfortunately, only one of these, the north Indian Durban Hindu Temple in **Somtseu Road**, is still standing (Diesel & Maxwell: 1993,5; Mikula: 1982,59,76-77). In Pietermaritzburg, many labourers lived in the Knipe Street barracks, so that the nearby property in lower Longmarket Street was acquired in 1885. This is now the site of the two oldest temples in Maritzburg: the south Indian Sri Siva Soobramoniar and Mariamman Temples (Wills: 1988,35). The land for the north Indian Sri Vishnu Temple across the road was purchased in 1907 (Diesel & Maxwell: 1993,32-38).

The Hindu Religion

Their religion almost certainly played an important part in helping the early settlers to create a new identity for themselves in the, at times, inhospitable conditions of their adopted country (Freund: 1995,8). Until 1905 Hinduism as practised in South Africa fell entirely within the category generally referred to as Traditional: that is the observance of the age old beliefs and practices some of which date back to the Indus Valley civilization of c.2500 BCE. This involves the practice of ancient rituals, ceremonies and festivals, which hold great appeal for the masses, and an emphasis on oral transmission of ritual and belief, rather than reliance on written scriptures and philosophical speculation. The South African Hindu community was only introduced to Reformed or Neo-Hinduism by the visits of Bhai Parmanand and Swami Shankaranand of the Arya Samaj in 1905 and 1908 respectively (Diesel & Maxwell: 1993,63-66). The Reformed movement of Hinduism in SA consists of the Arya Samaj, Neo-Vedanta groups such as the Ramakrishna Mission and the Divine Life Society; the Sathya Sai Baba Organisation; and the Hare Krishna Movement. Reformed Hinduism began in India early in the second quarter of last century. In contrast to Traditional Hinduism, the Reform movement, was influenced by Western ideas introduced largely by the British Raj. It abolished many of the ancient ritualistic practices and customs, such as child marriage and widow burning (*sati*),

emphasised the importance of reading the scriptures, and introduced contemplative practices like yoga and meditation, as well as congregational worship (Diesel & Maxwell: 1993,63f).

Although Hinduism might, on the surface, look like a type of polytheism, all Hindus believe that ultimately there is only one Divine Reality. The various manifestations of divinity that one sees in most temples are only aspects of the one great and complex Ultimate Reality. This belief is summed up in the words of the *Rig Veda*, one of the earliest Hindu scriptures: "They call it Indra, Mitra, Varuna, Agni... the Real is One, though sages give it various names" (*Rig Veda* 1.164.46). There are three major divine manifestations in Hinduism: Vishnu, Shiva, and the Goddess/Shakti, each tradition with its own pantheon of deities. Worshippers of Vishnu are known as Vaishnavites, those of Shiva as Shaivites, and those in the Goddess/Shakti tradition as Shaktas. In the Vaishnavite tradition, there is Vishnu the great God, and his consort Lakshmi. Vishnu's two most important incarnations are Rama, the hero of the epic the Ramayana; and Krishna, protagonist of the Mahabharata. Rama's consort is Sita, and Krishna's is Radha. Hanuman is the popular monkey god. In the Shaivite tradition, Shiva is the main Deity, with his consort Parvati, and their sons Ganesha the elephant-headed god, and Soobramoniar/Muruga.

The Goddess or Shakti tradition is a very popular and complex part of South African Hinduism. The Goddess is believed to manifest herself in many forms, both benign (eg. Lakshmi and Sarasvati), and fierce (eg. Durga, Kali, and Mariamman, the most popular of the south Indian folk Goddesses). While the light Goddesses represent the life-giving, nurturing forces of nature, the fierce Goddesses represent the dark sides of life, such as decay, disease, famine and death. There is, therefore, a need to propitiate these deities (Diesel & Maxwell: 1993,17-19; Diesel: 1992).

The architecture of places of worship belonging to Traditional and Reformed Hinduism reflects their somewhat different emphases. Traditional temples are usually dedicated to one of the major deities: Vishnu, Shiva, or the Goddess; and they are built either in the south or the north Indian style of architecture. Most north Indian temples are dedicated to Vishnu, while most south Indian temples belong within the Shaivite and Shakti traditions. These distinctions are, however, quite often blurred in South Africa, as Vaishnavite temples often also contain images of Shiva and one or other of the Goddesses, while Shaivite



temples frequently have deities from the Vaishnavite pantheon. This is because the early communities were very poor, and so could not afford to build separate shrines for each separate tradition (Diesel & Maxwell, 1993:19-22).

Reformed Hindu places of worship, often called *mandirs*, differ architecturally from Traditional temples mainly because of the need to seat a congregation for communal services, a practice that is hardly ever observed in the latter. For this purpose they include seating such as benches, chairs, or cushions, while some are raked and carpeted. These buildings also usually contain images and pictures of their founding gurus (eg. Ramakrishna, Sai Baba, or Sivananda of the Divine Life Society), as well as of certain selected deities from the traditional pantheon. The exceptions here are Arya Samaj *mandirs*, which only contain the Aum symbol, because of their belief that the One Formless Divinity can never be represented in concrete or pictorial form.

Southern KwaZulu-Natal is most fortunate in having many excellent examples of Hindu architecture, both in the south and north Indian styles. A number of these have been proclaimed National Monuments, but there are others which certainly should be considered for such status.

Alleyn Diesel

Ms Diesel teaches in the Department of Religious Studies at the University of Natal, Pietermaritzburg, and has researched Hinduism in Natal for the last ten years.

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Hindu Architecture in KwaZulu-Natal

Hindu Temple Architecture

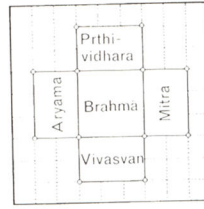
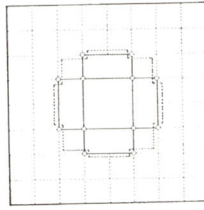
The Hindu faith in India evolved from the amalgamation of the beliefs of the invading Aryans and those of the indigenous Dravidians. Through the centuries this melding of cultures led to the writing of the *Upanishads*, a philosophical treatise of classical Hinduism which seeks to understand the laws governing the cosmos and the belief that all existence and activity have a bearing on each other.

Brahman was recognised as the Supreme Being – the ultimate cosmic force with no form. This force is attributed with the functions of creator, preserver and destroyer, which eventually resolved itself into the Hindu trinity of Brahma (the creator), Vishnu (the preserver) and Shiva (the destroyer). In later centuries temples devoted to Shiva in the South, and Vishnu in the North, became more popular than temples devoted to Brahma.

The science of architecture existed in Vedic times (pre-*Upanishads*) as *Vastu-vidya*, an oral tradition passed down through the generations from father to son. The later written manuals on architecture are known as the *Vastu-shastras*. This included a complex set of instructions relating to proportions, orientation and rituals of temple building. The importance of this is illustrated in a quote from the *Mayainata* (an ancient text) "Only if the temple is constructed correctly according to a mathematical system can it be expected to function in harmony with the mathematical basis of the universe". The reverse is also true: "If the measurement of the temple is in every way perfect, there will be perfection in the universe as well".

As the temple was seen to be providing a sacred location where man could connect with God, the temple symbolically represents the journey of achieving *moksha* which is the ultimate goal of any Hindu ie man's release from an illusory world into which he is recurrently born. The temple identifies with the form of the universe and hence great significance is attached to its siting, ground plan and vertical elevation, which represent the images of mountain, cave and cosmic axis, according to a sacred language of mathematics.

The plan of a temple in the North was based on the *vastu-purusha-mandala* which is a square divided into squares of differing sizes. In the South, a slightly different form of mandala is



used. The mandala is the basis of all existence in its perceived form. In Vedic times, a round altar referred to the terrestrial world, and a square one to the celestial, because the square, unlike the circle does not represent movement. It is a final and absolute form and is therefore used to represent the 'Absolute'. These diagrams were used as a basis for any building from a hermit's shelter to the layout of a city.

There are a variety of methods of dividing the square, all prescribed by the complex system of proportions laid down in the ancient manuals. eg *sthandila* – 49 squares; *manduka* – 64 squares; *parama-shayika* – 81 squares; and *padma-garbha* – 256 squares. The central square relates to Brahma and the surrounding smaller squares to minor deities.

The centre of the square co-incides cosmologically with the position of the sacred mountain Meru – the support of the universe according to Hindu lore. In temple design this translates into the form of the towers, so representative of temples to this day. Therefore the highest point of the temple is aligned with the most sacred point.

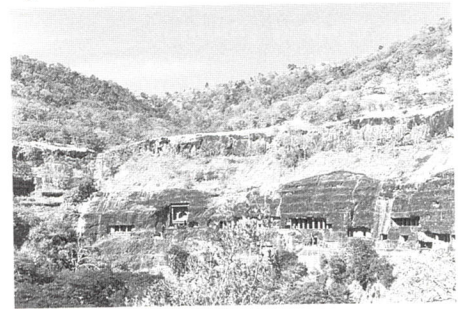
Due to the detailed instructions contained in the architectural manuals, the Hindu architect did not have much freedom as to the basic elements of the temple. Originally temples consisted of just the sanctuary or cella, windowless spaces, which help one to focus one's attention on worship, a solitary activity between oneself and God.

It was only from the 8CE onwards that an assembly hall was added to the temple complex as a separate element. The two elements contrasted with each other in that the cella was simple, dark and undecorated while the *mandapa* (assembly hall) was relatively light and became highly decorated.

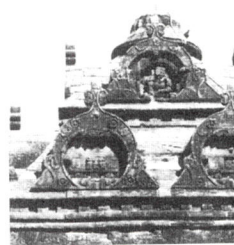
According to the *Brihatsamhita* (another ancient text), "...the gods always play where groves are, near rivers, mountains and springs and in towns with pleasure gardens." Therefore sites were chosen accordingly. Another reason for the presence of water is the ritual bathing which is necessary before worship. So, where there was no natural source of water, water tanks (reservoirs) were constructed.

Traditionally temples in India were built using a variety of materials such as timber,

mud and plaster, and later, brick and stone (in especially large and important buildings.) Stone structures however are the most distinctive forms of Hindu architecture, especially during the periods when temple building enjoyed royal patronage in the middle ages. These were achieved by either excavating into solid rock (*Ajanta Caves* 4BCE–9CE) or building in dry stone.



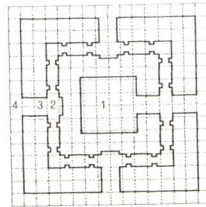
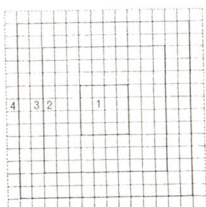
The physical characteristics of the earlier forms of construction were directly transposed into stone as Hindu architects were concerned with representation. Therefore one can still see the elements of earlier construction methods eg dormer windows used widely in the north, became horseshoe arched window motifs that were adapted and used extensively in later years.



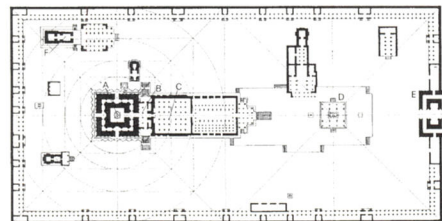
This tendency was also the basis of the two broad styles of architecture that emerged, known as south Indian or Dravidian and north Indian or Nagara. The towers of the Dravidian temples express the horizontal basis of the earlier multi-storeyed structures called *prasada* used for early palaces and monasteries (*vimana*, the Palace of the Gods, the levels representing the stages of grace) while the Nagara towers express verticality, and were based on the shape of the original bamboo poles tied together at the top to form the basis of the towers.

A very significant aspect of devotional ritual in Hinduism is the circumambulation (*pradakshina*) in a clockwise direction around a sacred person, image or object. This practice developed into the physical form of ambulatory passageways around the cella, with other icons positioned along the way in many temples.

Generally the south Indian temple consisted

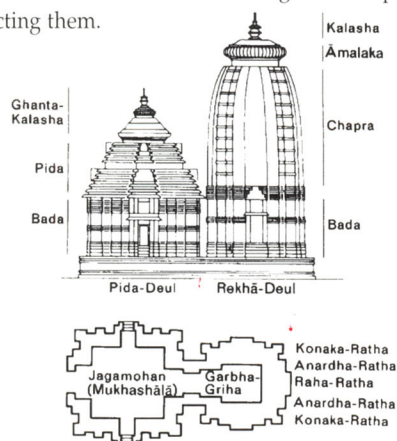


of the following elements:- an entrance gate (*gopurum*) which developed into monumental elements; pavilion for the vehicle of the deity to which the temple is devoted eg, the bull (*nandi*); the vehicle of Shiva; a pillared assembly hall (*mandapa*), usually enclosed; and the cella housing (*griha* *graha*) the icon of the deity.



The North Indian temple, consisted of an assembly hall with porch (*jagamohan* or *mukhashala*), which was often treated as a transparent element; and the cella (*shikhara*).

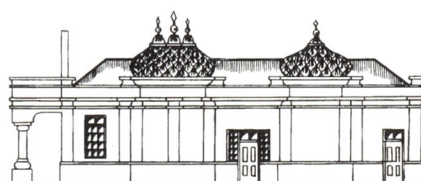
As a vulnerable point in a temple, the doorway had to be protected from evil spirits and one usually finds that Nagara style temples have elaborate doors with river goddesses protecting them.



South African Temples

Early South African temples were wattle and daub structures that evolved to corrugated iron and, much later, to brick structures. The first examples were simple shrines. Subsequent examples were built by people who had to rely on memory as to form and decoration. Kistappa Reddy, Kothanar Ramsamy Pillay and Alaga Pillay were the few exceptions that seem to have had construction experience in India. Bearing in mind that in India only specialists were entrusted with the designing of temples, the many fine examples we have in South Africa bear testimony to the skill and artistry of the local builders.

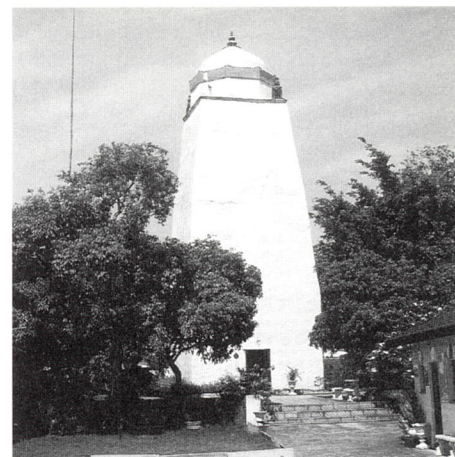
The South African Dravidian style developed from simple square plan shrines (with east-west orientation) to more complex groups of building eg the Umgeni Road temple compound. The South African Nagara style of temple developed slowly from a free-standing cella with emphasis on verticality (also east-west orientated) to complexes that included assembly halls.



However, due to the mixed nature of settlements ie people of north and south Indian descent living together, temples developed a hybrid style eg north Indian temples were built with external altars and *kodi* poles and south Indian temples sometimes had Islamic-like domes over the cella. Although in India temples were devoted to one main deity with other shrines being relatively minor, due to the particular nature of the Indian settlements one often finds Shiva and Vishnu shrines on the same site as at the Umgeni Road Compound.

Because of the lack of experienced artisans, as mentioned before, and also finance, it was not possible to build structures of the same magnitude as India. Therefore *gopurums* became simple entrance gates and the *sikharas*, although sometimes finely decorated, did not reach the heights of their Indian counterparts. The builders, however, still managed to reproduce the main characteristics of especially the towers. A good example is the **Narainsamy Temple in Newlands**, built by Kristappa Reddy.

The horizontal layers are easily distinguished with the distinctive horseshoe-arch motifs in evidence. The Nagara style tower was less evident as the north Indian temples were influenced by Islamic, Victorian and Edwardian architecture. A rare example of a Nagara style tower is the **Temple in**



Tongaat while an example of a Hindu temple with Victorian overtones is the **Somtseu Road Temple** which was designed by architect J.P. Mumford.

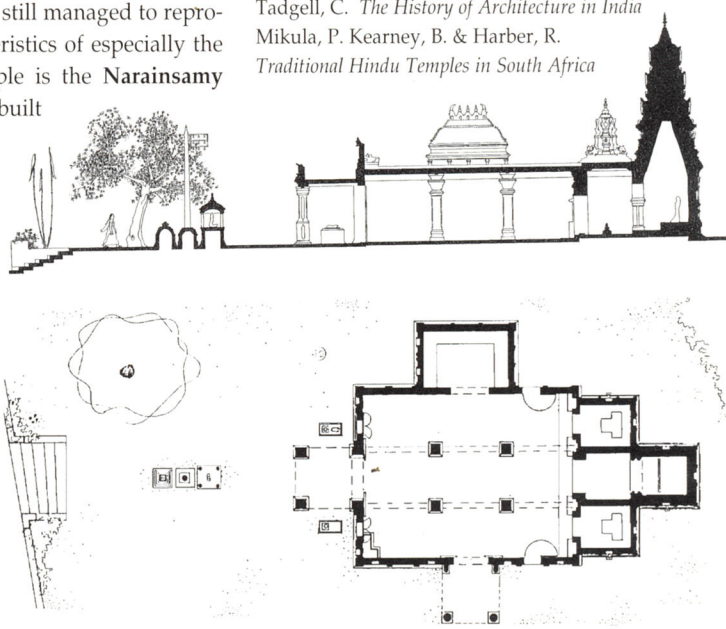
The decoration of temples in South Africa usually begins above eaves level – unlike temples in India where the entire external facade is decorated. This, when one considers the rather naive quality of sculptures present in South Africa (with the possible few exceptions like the Umbilo Second River Temple – see cover) was probably an advantageous approach, as it contributes to the simple appeal of the temples.

Due to the cultural demands of education and weddings, the assembly halls became the dominant element of later temple structures. These halls are not necessarily attached nor in the same orientation as the shrines. This could be the result of tight sites allocated to temples by the municipalities of the day. One major element not included in South African temple complexes is the water tank of the Indian temples. According to 'Traditional Hindu Temples in South Africa', this could be the result of easy access to running water here.

Rani Naiker

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Hindu Architecture in KwaZulu-Natal

Sydenham Road Mandir

Let us take you on a journey of exploration and discovery through the incredible and fascinating realm of Hindu temple architecture, a journey which we as architects embarked upon with eager anticipation – quite unaware of the richness and diversity that this religion presents.

The brief called for a Northern style Hindu Temple which would become not only a symbol for Hinduism in Durban, but also a meaningful attraction to the tourist and the public.



the dark mystical character of caves. Externally, Meru, the mythical mountain which keeps apart earth and sky is symbolised by the temple dome, *sikhara*. This is evident in the Northern style of Hindu temples particularly the Gujarat temples. This distinct Northern (Nagara) temple dome shape was determined by the technology available in early times when 4 bamboo poles were tied together to form the dome. As building technology improved, so did the architectural expression of the domes, but

the basic shape was retained.

Hindu Temple Architecture

From the outset, it was apparent that to study Hinduism is neither difficult nor easy. With no concise dogma nor any singular founder, Hinduism is unique. It is an eternal religion, always changing and adapting. An amalgamation of many philosophies, Hinduism is about transmigration and rebirth of the soul, and the ultimate objective of the devotee, is to learn the secret of this endless cycle of birth and death, and to achieve *moksha* – release from this cycle. There are three known paths to *moksha*:

- *bhakti*: worship & ritual
- *karma*: path of action
- *jnana*: knowledge and self realisation.

Karma was the most popular and resulted in the ritual worship of a particular deity. This

necessitated shrines for the accommodation and worship of the deity and led to the creation of the characteristic Hindu temple architecture.

Symbolism

The objective of a temple is to bind the worlds of God and man. This is achieved by structuring temple architecture around a system of proportion and symmetry and a *mandala*, developed as a microcosmic image of the universe. This *mandala* is symbolic of the world of the God Parabrahma surrounded by his various manifestations personified in the form of Shiva, Vishnu, Lakshmi, Saraswati etc.

Astrology and astronomy are inseparable from Hinduism and "Cosmic Man", *Mahapurusha*, forms an integral part of the *mandala* system. The overall goal of the principles of design is the desire to identify physical forms of the temple with laws that govern the movement of heavenly bodies. Hence, for instance, the critical East orientation of devotional procedure.

The temple is conceived as a place of transit, a crossing from the temporal to the eternal. It is the place of a pilgrimage, *pradakshina*, to spiritual perfection. The centre of the sanctum, *garbha-griha*, is the focus of the dynamics of the temple. It is the link between God and man and radiates an outward flow of energy. Apart from the *murti* figurines that represent some of the deities, the temple itself is also an object of worship. The architectural and sculptural components have as their primary purpose the evocation of the presence of the Divine.

Mountains have traditionally been the symbolic home of the Gods and caves accommodated the first known temples. Hence the spatial quality that exists within modern temples reflects

The Northern Temple

The Northern temple has the following distinguishing characteristics:

- it is usually elevated on defined plinths;
- it has elaborate doorways and columns;
- a *pradakshina* (circumambulatory) about the principal *murti* is always present;
- there is a ninefold application of miniature domes about the main dome; and
- the outer wall is modulated to symbolise the diversity and complexity of the Hindu religion.

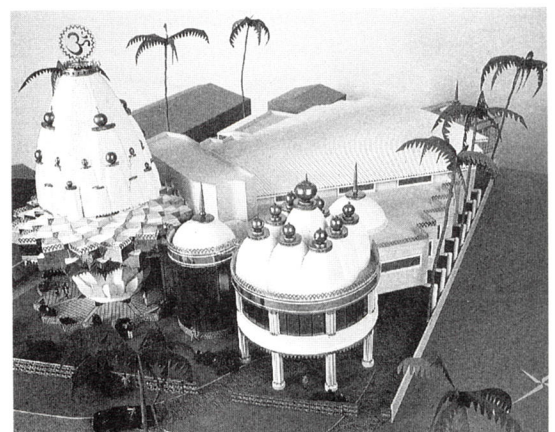
Of primary importance to us as architects was that the design solution should meet with the criteria identified as vital to the success of the temple:

- that the aspirations and dreams of the community are realised;
- that we at all times respect history and tradition which are in fact the bastions of Hinduism;
- that an awareness of our context in the modern world is operative through not only design, but also the sensitive use of current technology and materials; and
- that the practical purposes are fulfilled, and



SOME HINDU SYMBOLS Clockwise from top left:
AUM, symbol of the Supreme Being.
SHIVA, dancing out the creation and the destruction of the universe.
LAKSHMI, consort of the God Vishnu.
GANESHA, Shiva's son, the elephant-headed deity, the remover of obstacles.

Reference: Diesel, A & Maxwell, P. *Hinduism in Natal*.



the building caters for stated present and future needs.

Drawing our inspiration from the roots of the religion, four symbolic elements were used to create the architecture of the Sydenham Road Mandir:

- The Flowering Lotus: the symbol of life. The huge lotus flower floating like an offering on the ornamental plinth pond blossoms into the temple rising above.
- The faceted envelope of the temple: The sparkling facets of the external walls evoke the idea of the temple as a precious jewel, and reinforce the idea of the temple itself as an object of immeasurable beauty and wealth.
- *Jnana*: one of the paths to *moksha*, self knowledge and introspection, is symbolised in the reflective glass facade which offers devotees a "Mirror of the Soul".
- The *sikhara* dome: the symbol of the worldly mountain *Meru* and the home of the Gods.

Conclusion

Hindu Temple Architecture has at its roots deep symbolism expressed in a multitude of ways and developing continuously with the advance of time and building technology. Our brief journey into Hindu temple architecture has been a fascinating introduction to not only an architecture but also to an age old culture. Only once the Sydenham Road Mandir (temple) has been adorned with its decorative finery and regalia, will this modern interpretation of an historic Northern temple architecture be complete and ready, to fully serve its intended purpose.

We wish the community well.

OM SHANTI SHANTI SHANTI

Client: Gujarati Hindu Sanskruti Kendra

Architects: Uwe Potter Architects

Project Architect: Basil Vogas

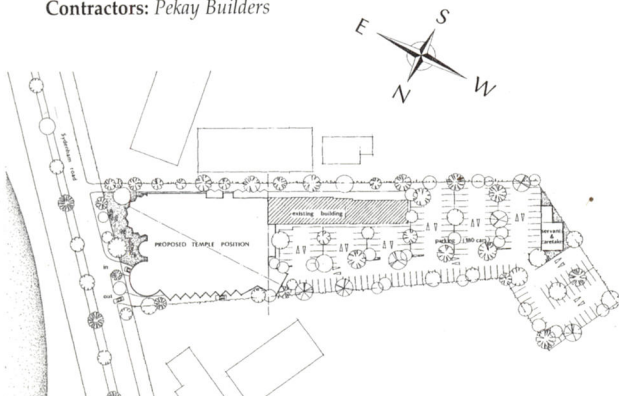
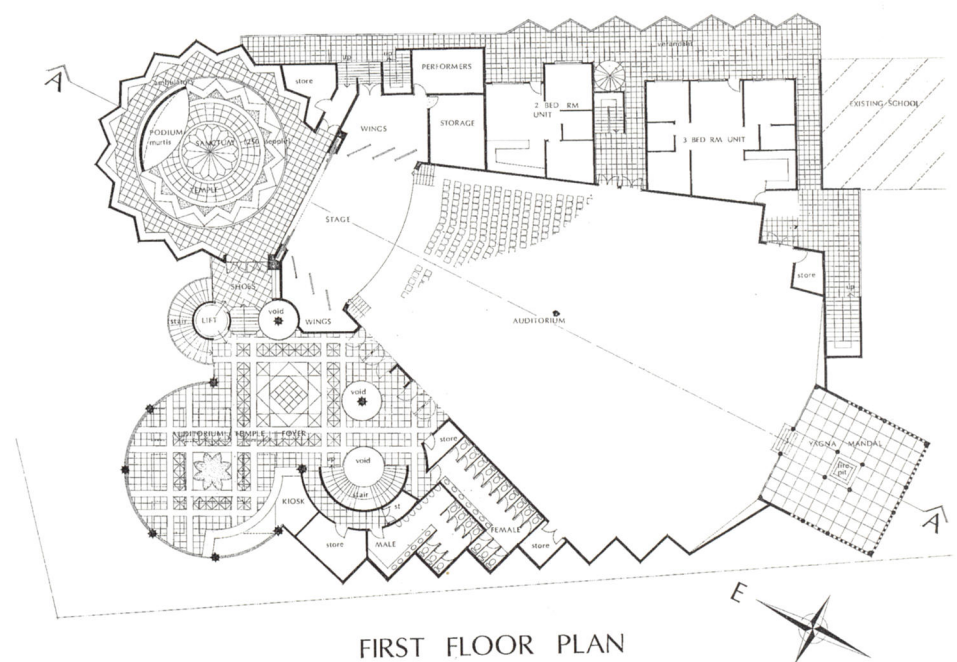
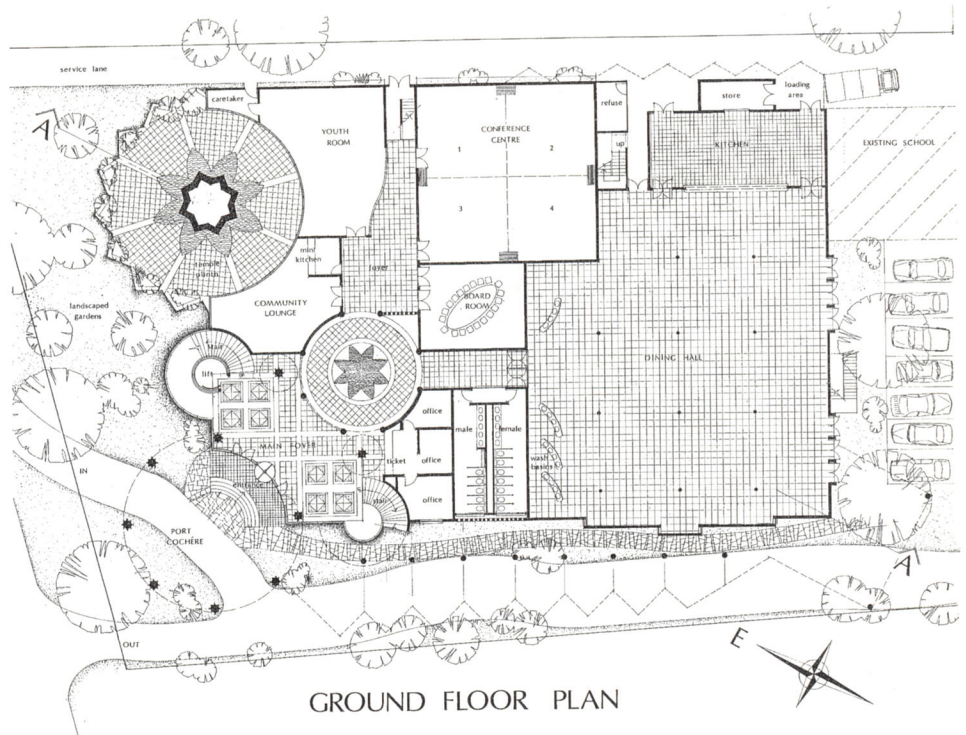
Quantity Surveyors: Letchmiah Daya & Associates

Structural Engineers: Nathoo and Associates

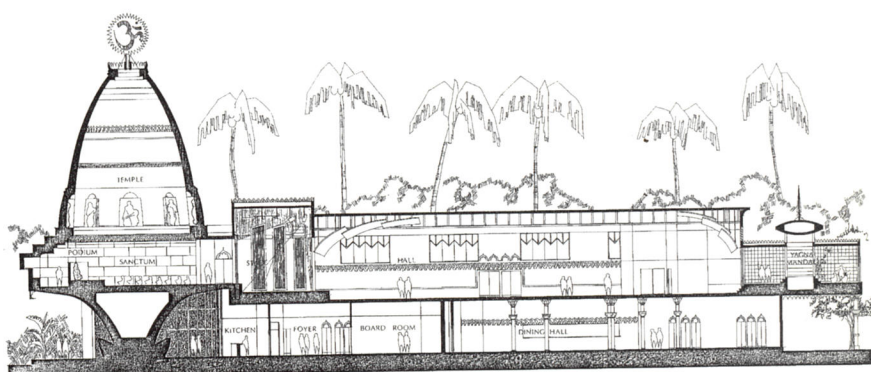
Mechanical Engineers: GH Marais & Partners

Electrical consultants: Edison Power

Contractors: Pekay Builders



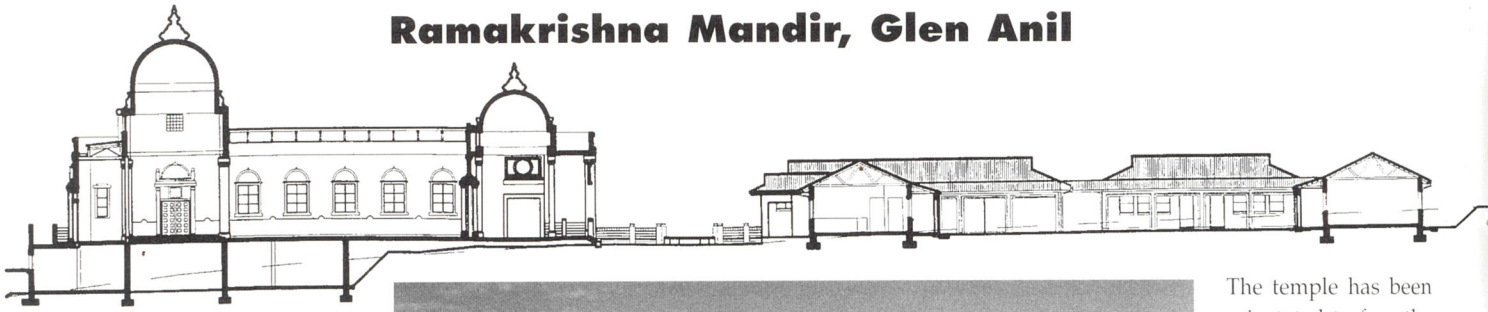
SITE PLAN



SECTION A-A

Hindu Architecture in KwaZulu-Natal

Ramakrishna Mandir, Glen Anil



The Ramakrishna movement originated in West Bengal approximately 100 years ago with its members following the teachings of the mystic Sri Ramakrishna (1834–1886). The headquarters of the Ramakrishna Centre of South Africa is at Glen Anil where a large new temple and an ashram were built in 1993.

Background to the Mandir

Founded in South Africa in 1942 by Swami Nischalananda to propagate the teachings of Sri Ramakrishna, the complex comprises a temple, and the ashram with administration areas, counselling rooms, instruction rooms, a library, museum, bookshop, dining areas and accommodation for visiting monks and dignitaries, and it hosts a variety of religio-humanitarian activities such as yoga classes, youth camps and the publication of books, magazines and scripture leaflets. The centre conducts a children's feeding scheme, as well as psychotherapy, speech and hearing therapy, and homeopathic and reflexology clinics, while professional staff are also responsible for an AIDS awareness programme. However it is the temple, the regular prayer meetings, and annual inter-religious conferences associated with the Ramakrishna movement, that form the heart of the centre's activities, hence the design of a prayer hall to seat 450 people.



The temple has been orientated to face the rising sun in the east and to silhouette its domed form against the setting sun in the evening. It is surrounded by an *otla* (walkway) for devotees to make religious processions around the temple.

Like traditional Hindu temples, the plan is axial with a journey that begins at the entrance, guarded by two sculptured lions. Lions have

Although the site, of 2,96 ha, is surrounded by industry and a motorway; hilly terrain, vegetation, and the monkeys which greet the visitor on the winding path to the complex, allow the centre to have a close relationship with the natural environment, and harmony with nature is an essential Hindu concept.

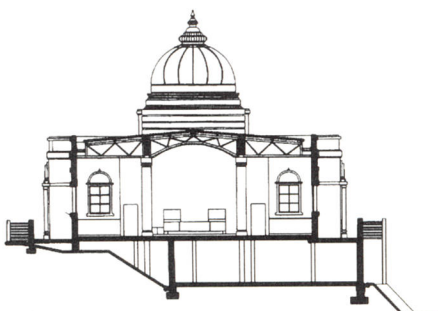
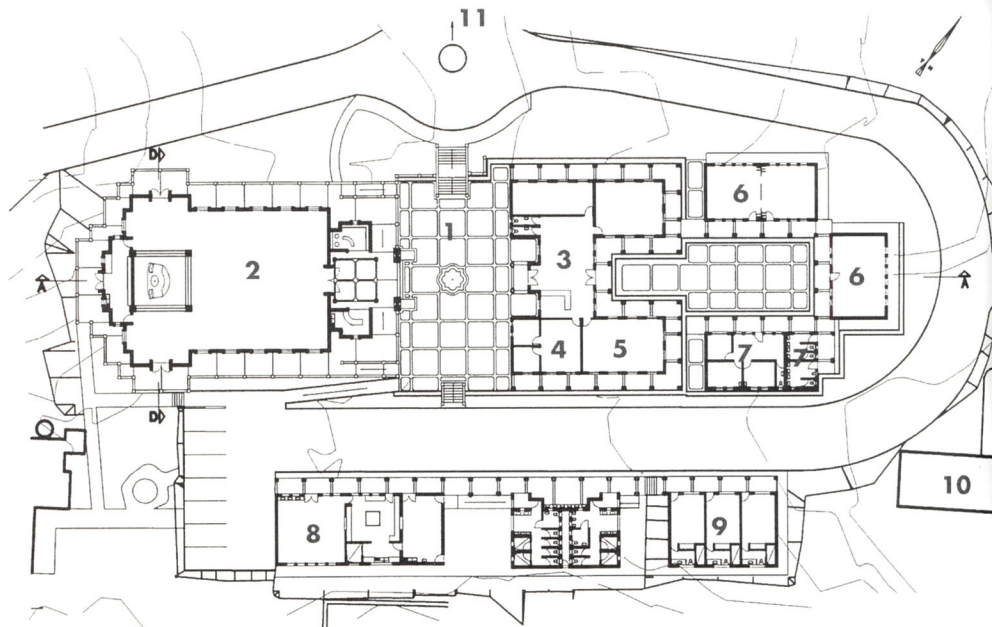
The topography of the site offered the opportunity to create a monumental building, with the temple being placed on high ground as the visible focus of the complex. The building is also raised on a basement plinth, further asserting the monumentality of the structure.

"defended" Hindu temples for over 5000 years. The open entrance foyer is flanked symmetrically by the shoe removing area on one side, and the *prasad* (area for depositing offerings) and ablution area on the other. The axis which is articulated by the carpet and the lightly-vaulted ceiling spine, passes through the prayer hall and the raised marble altar. Behind this is a fresco of a Banyan tree, 'under' which a *murti* (sculpture) of Sri Ramakrishna meditates.



Plan

1. Entrance court
2. Prayer Hall/Temple
3. Ashram entrance
4. Administration
5. Library
6. Instruction Rooms
7. Consulting Rooms
8. Refectory
9. Guest Rooms
10. Existing publishing centre
11. Parking



The interior of the prayer hall, although large in volume, is warm and neutral in colour, echoing the rust shades encountered throughout the rest of the complex. Embellishment is restricted, with only a few timber panels bearing Hindu motifs such as peacocks and elephants, as well as the symbols of other religions such as Christianity, and Islam etc to illustrate the all-embracing nature of Hinduism. The carpet is designed for one person to be seated in a rectangular area, thus dividing the chamber into a regular grid.

The exterior is similarly plain, and understated in the embellishment usually associated with Hindu temples, however, as with traditional temples, local technology and building materials were used. The use of facebrick provides texture to the exterior and meets with the maintenance-free requirement. Even the domes are constructed of brickwork and are finished with stone chips, capped with a fibreglass cupola.

The rust colour scheme, continued throughout the complex, down to the balustrading and outdoor lighting, is also the colour of the traditional religious robes, and thus the temple is harmoniously unified with its followers, particularly at religious festivals. The adjacent



buildings have been kept to a domestic scale so as not to vie with the temple.

Thus, by adhering to traditional forms and the ancient principles of axis, focus, proportion and orientation, the architects have created a temple reminiscent of temples in India, while at the same time, it is contemporary enough in its simplicity and lack of maintenance, to function as the nucleus of a rapidly growing community centre.

Tia Katsikoyiannis

(Fifth year architectural student at the University of Natal)

Architects: Naren Mistry & Vikram Desai Architects cc
Quantity Surveyors: Letchmiah Daya Associates
Structural and Civil Engineers: Young and Satharia
Electrical Engineers: BKB Engineering Services cc
Land Surveyors: C. Ramiah
Main Contractor: Rambros Building Services & Contractors cc

Hindu Architecture in KwaZulu-Natal

Radha Radhanath Temple, Chatsworth

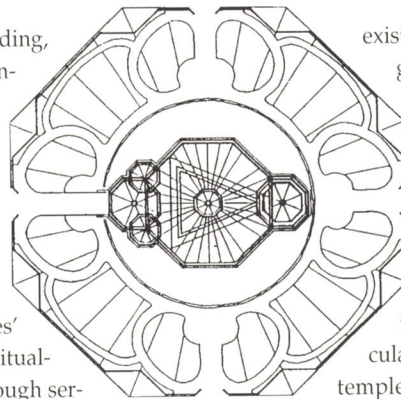
The Temple of Understanding, the Sri Sri Radha Radhanath Temple was constructed by the Krishna Consciousness Movement (ISKCON) – the International Society for Krishna Consciousness. The movement embraces every aspect of devotees' lives in order to attain spirituality and absolute truth through service to Krishna and to the spiritual master.

The temple was designed by an Austrian born devotee, Hannes Raudner, whose spiritual name is Rajaram Das. He has worked on several of the movement's architectural projects throughout the world, and he has tried to express the three aspects of the mood of ISKCON i.e. traditional, contemporary and futuristic in the above complex.

The traditional aspect is represented in the three domes, which are designed according to the traditional Hindu style. The present day activities of the devotees are seen to be represented in the ground and first floor of the main building, with many small vertical windows representing busy activity. The futuristic aspect of ISKCON is symbolized by the temple space, with its cantilevered profile & stainless steel covering.

The plan of the temple is based on the *vastu-purusha-mandala*, the basis of all North Indian temples. The movement sees the circle as a symbol of ignorance, eg. repeated birth and death without movement to higher planes, while the square is seen as a symbol of intelligence and knowledge. The triangle represents passion, *karma* and action and also the dualistic nature of material life, where every action has a reaction. The octagon is considered the highest symbol representing the transcendental platform (*suddha sattva*) or pure goodness and is therefore used in the design of the temple room.

The boundary walls separate the outside world from the complex while the four entrances to the complex represent the four ages of



existence or *yugas*. The eastern gate represents the mystic; the southern entrance represents the path of developing spiritual knowledge and the northern entrance represents the path of fruitful activity in God-consciousness. These three entrances lead to a circular path which surrounds the temple symbolizing ignorance.

However, the western entrance leads to a bridge which crosses the circular path and links directly with the entrance of the temple. This represents devotional service to the Supreme Personality of the Godhead, which together with the chanting of holy names, is the recommended process of self realization for this age of *kali yuga*.

The two minor domes that one passes through, before getting to the main dome, represent the spiritual masters, as no one can approach Krishna without going through the medium of a master. The octagonal temple hall symbolizes the transcendental association of the devotees, and finally one approaches the main dome which represents Lord Krishna or the Supreme Personality of the Godhead. The entrances to the temple are low and relatively insignificant so that people are humbled before entering the grandeur of the ornate temple room in order to glorify the Supreme Being.

The Radha Radhanath Temple is a symbol of pure Krishna consciousness – a refuge from the dualities of the material world, and therefore represents the spiritual home of all living entities.

Rani Naicker

Compiled from a brochure distributed by ISKCON.



Hindu Architecture in KwaZulu-Natal

Surat Arya Bhajam Mandir, Reservoir Hills

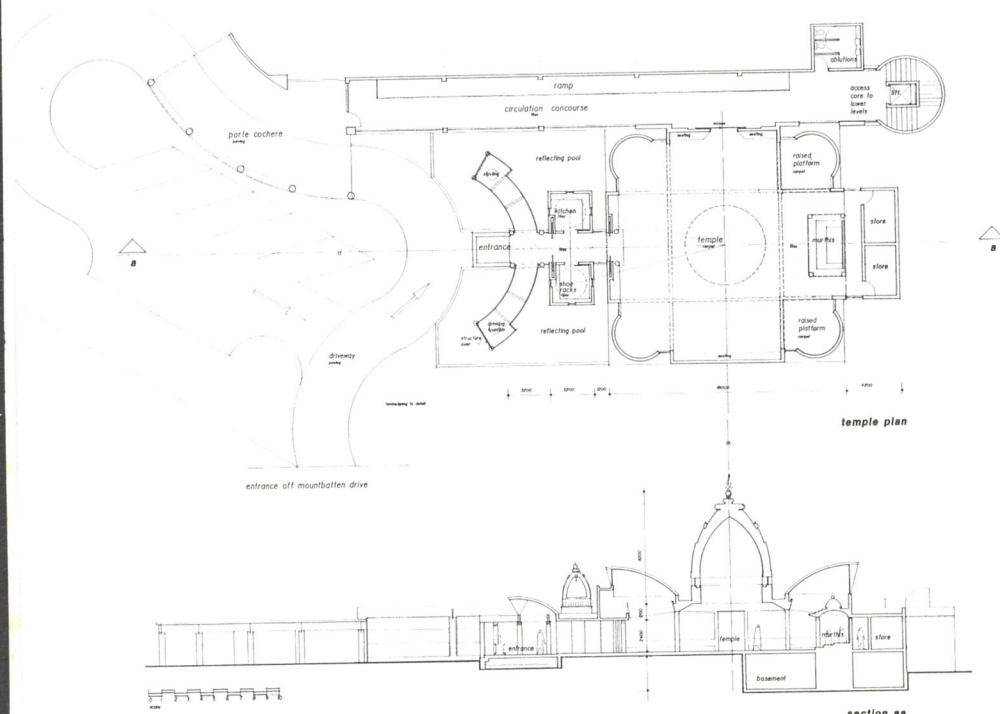
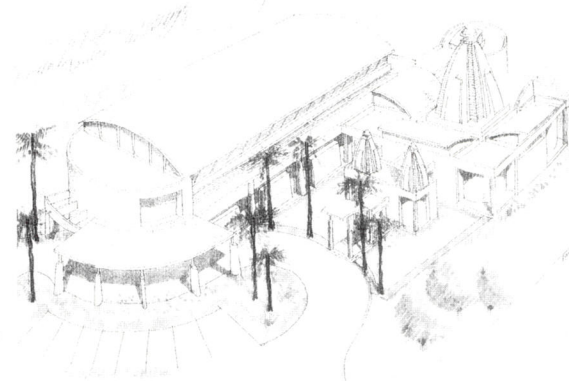
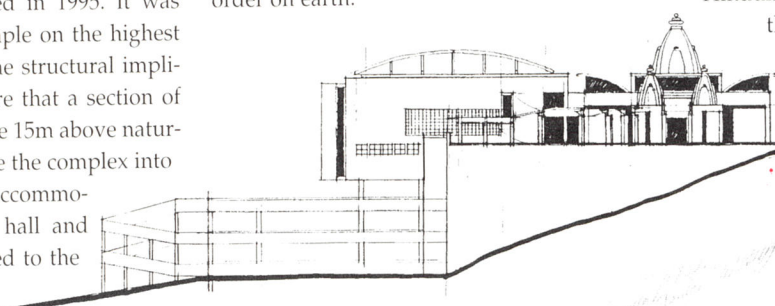
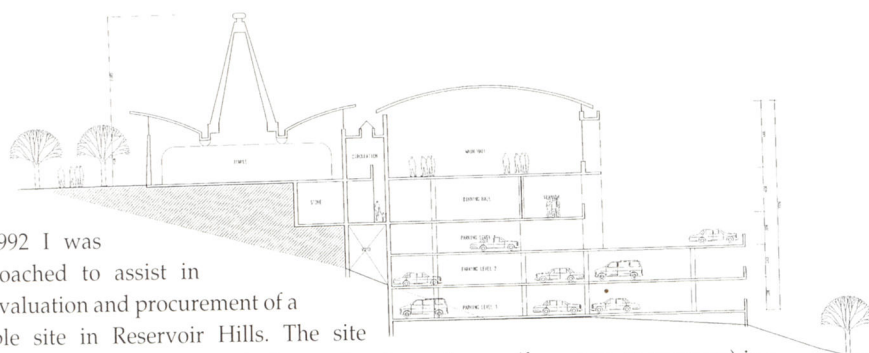
In 1992 I was approached to assist in the evaluation and procurement of a temple site in Reservoir Hills. The site offered by the City was typical of most sites in the area: it "enjoyed" an average fall of 1:4 across its width and resembled a verdant cliff face. Nevertheless, a preliminary detailed site analysis revealed that it was possible to locate the desired accommodation on the site and transfer of the site occurred in 1995. It was decided to position the temple on the highest lying portion of the site. The structural implications of this decision were that a section of the temple was located some 15m above natural ground level. To integrate the complex into the site, 3 parking decks accommodating 180 cars, a dining hall and multi-purpose hall all linked to the temple via a vertical circulation spine was proposed. These are to be considered in phases.

The design of the temple is based on the classical proportioning system for temple architecture as set out in the ancient Indian temple design text, the *Shilpa Shastra*. The temple is viewed as a link between man and God, between earthly life and divine life, between actual and ideal. As a result, symbolism pervades every facet of temple design. The term

vimaana (from *maa*, to measure) is a word that frequently occurs in Hindu temple terminology. The literal meaning is "a well proportioned structure". This is what a temple should be. The temple is seen to signify God the creator, a rational symbolic imprint of order on earth.

The ideal plan for a temple is a square. A mandala is essentially a square. The chief characteristic of a mandala is symmetry and it represents the perfect work created by a perfect creator. The centre of the square represents the fundamental creative principle from which everything evolves.

In designing this temple, I endeavoured to translate historical precedent and objectives into a modern textually acceptable and reflective language. The plan of the temple itself is essentially a square hall measuring 18x18m positioned along the east-west axis. This axis is an important structuring device as it relates to the rising and setting sun, and via this relationship, the cosmic connection is enhanced. Inscribed within the square is a circle, an entity having neither beginning nor end. At the centre of both circle and square is the principle *shikara* which forms the head of a triangular arrangement comprising 2 secondary cupolas, 3 being representational of the *trimurti* or trinity. The 3 domes are symbolic of the essence of Hinduism and represent the creator Brahma, the destroyer Siva, and the sustainer Vishnu. It is within this trinity that every denomination of Hinduism is accommodated.



In section, a bridge spans a reflecting pool, symbolic of the sacred waters of the Ganges and of the purifying nature of water. The temple's central area is illuminated via clerestory windows or scoops that radiate from the central principle dome. The sectional treatment is an abstraction of the lotus flower, a powerful symbol in Hindu philosophy, the *shikara* representing the bud and the curved roofs the petals radiating towards the four cardinal points.

It is disturbing to note that many Hindu temples that have recently been constructed do not adhere to the sacred principles that inform and invest this building type with meaning and purpose. Many of these important community buildings are entrusted to under-qualified designers who in the absence of proper training, sensitivity and research, produce major structures inappropriate, both architecturally and socially.

Ravi Jhupsee

Mr Jhupsee is a graduate of the University of Natal.

The Search for a Synthesis

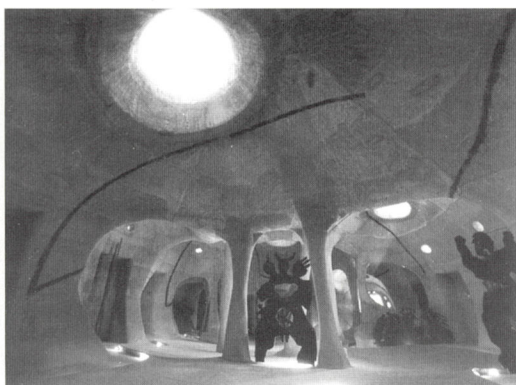
The past decade has seen a search by Indian architects for their 'roots', for an identity of their own. There have been efforts to both reassess and attempt to tie contemporary Indian architecture with its rich heritage.

There has been a re-emergence of vernacular forms, regional architectural idioms and, more recently, a renewed interest in the Vedic *vastu shastra* used as a basis for design. Architects have taken on the task of synthesizing the ideas and values of post-British (modern) India, capturing the spirit of the times (both nationally as well as internationally), and at the same time being guided by the intellectually inspiring ancient Vedic writings (which form the basis of Hinduism).

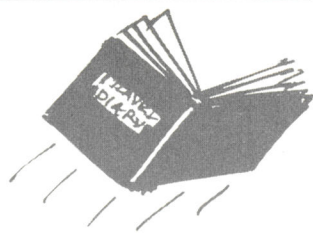
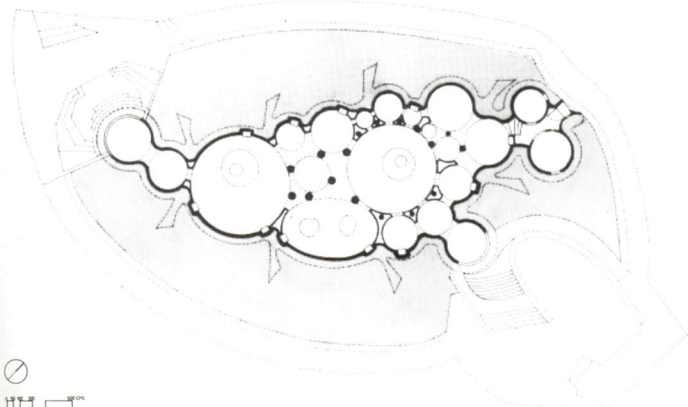
India has a rich heritage of ancient and more recent Hindu Architecture, its quality being both in its cultural and spiritual content and value, as well as in its visual and physical form and decoration. These were and still are a source of immense spiritual and inspirational power to the Hindu.

This 'holistic architectural experience' is able to evoke and arouse feelings of home, identity, and culture, as well as universality in a similar way to that of the Indian *raga* (melody).

Despite this, the Indian cities of today contain an architecture often lacking in thought, design, unity, meaning and experience. This could possibly be an expression of a material or utilitarian culture and the aggressive construction industry. Or it could be the result of an



BELOW:
Hussain – Doshi Gufa
(Balkrishna Doshi –
Ahmedabad, 1990s)
The Art Gallery to house
the works of sculptor
M.F.Hussain comprise
overlapping circular and
elliptical spaces
formed under
earth mounds
reminiscent of the
cave temples of
Ajanta and Ellora.
Lighting occurs
through overhead
domes, creating
an interesting
play of light and
dark around the
sculptures.



A Travel Diary – India

The Editorial Board has proposed that the inside back cover of each issue be dedicated to travel experiences or to interviews concerning wider architectural issues.

Members are invited to contact the Executive Officer of the KZ-NIA, Mrs Sylvia Grobler. Editor

architectural profession being totally enamoured by the architecture of the British, as well as the post-Independence Western experiments in modern architecture, and trying to copy it blindly within a different context.



ABOVE:
The Crafts Museum
(Charles Correa – New
Delhi, 1970s)
Designed as a village
complex, the Museum
simulates rural life in
India by using traditional
elements, symbols and
materials assembled in a
new manner.



It is within this background that the works of 2 Indian architects (Charles Correa and Balkrishna Doshi) stand out as notable examples of this search to rediscover, transform and synthesize. By using their sensitivity, intuitive wisdom, education and culture, they have been able to create a New Architecture.

Karuni Naidoo

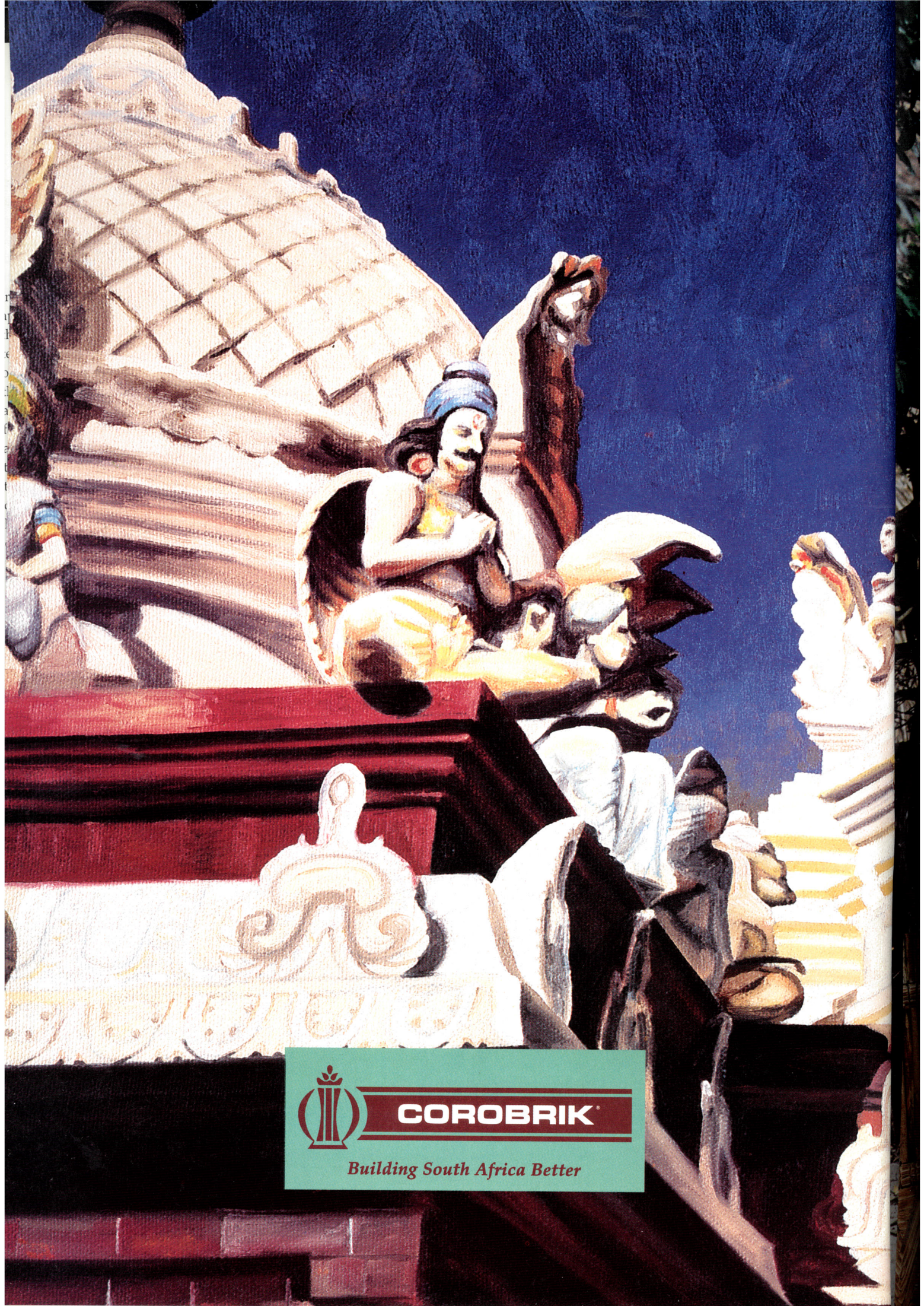
Ms Naidoo visited India for the fifth time in December/January 1997. She is a graduate of the University of Natal, and a partner in the practice CNN Architects, Durban.



ABOVE:
The British Council
(Charles Correa – New
Delhi, 1990s)

Correa's latest contribution to contemporary Indian architecture: a cubic stone-clad structure with an entrance facade dominated by a bold mural. The design is influenced by the layout of a Hindu temple. Open and closed spaces occur along a central axis, culminating at a statue of Shiva sitting in a pool of water.

LEFT: The Rock Garden
(Nek Chand –
Chandigarh, 1980s)
A strange and whimsical
concrete maze and gar-
den reminiscent of
Gaudi's Park Guëll. The
sculptures combine folk
motifs and traditional art
forms which are in con-
trast to Le Corbusier's
adjacent stark outdoor
sculptures.



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