Indian temples in the US: the sacred becomes the secular

Lakshmi Sundaram

Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Recommended Citation

Sundaram, Lakshmi, "Indian temples in the US: the sacred becomes the secular" (2002). Retrospective Theses and Dissertations. 21328. https://lib.dr.iastate.edu/rtd/21328

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Indian temples in the US: The sacred becomes the secular

by

Lakshmi Sundaram

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF ARCHITECTURE

Major: Architecture

Program of Study Committee:
Clare Cardinal-Pett, Major Professor
Thomas Leslie
Hsain Ilahaine

Iowa State University

Ames, Iowa

2002

Copyright © Lakshmi Sundaram, 2002. All rights reserved.
This is to certify that the master’s thesis of

Lakshmi Sundaram

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy
# Table of Contents

**ACKNOWLEDGEMENTS** iv  
**ABSTRACT** v  
**PART A. INTRODUCTION** 1  
- Faith, Worship and Architecture 2  
- Race, Religion and Attitudes 5  
- Hinduism in the United States of America 9  
**PART B. TRADITIONAL HINDU TEMPLE ARCHITECTURE** 11  
- Origins of Hinduism 11  
- Temple Architecture in India 15  
**PART C. HINDU TEMPLES IN THE U.S** 32  
- History of Immigration to United States 32  
- Temple Architecture in United States 33  
**PART D. CONCLUSIONS** 51  
- Introduction 51  
- Proposal 52  
- Conclusion 54  
**REFERENCES** 62
Acknowledgements

I would like to thank my major professor, Clare Cardinal – Pett, for her invaluable guidance, insight and encouragement, and for helping me to understand and define my thesis in my own terms. I would also like to thank Thomas Leslie and Hsain llahaine for serving as my committee members and for their advice and support.

I would also like to thank Gary Tartakov for his guidance.

A special thanks goes to my family and friends, for their continual encouragement and moral support.
Abstract

This thesis is the study of religious architecture in the form of Hindu Temples in India and the United States. It looks at the impact of religion and society on architecture and vice versa. It examines the (un)importance of rigid religiousness and its effects on social life as well as the development of architecture.

It proceeds to examine the same architecture transplanted in another culture. The very same architecture, being alien, has a different impact as it breaks down cultural barriers in some cases. The research, at the end, suggests that although religion is an important part in a culture, it can be a unifying force and a secular architecture can be one step towards a secular society- one that the world needs.
Part A: Introduction

This thesis is the pursuit for a common architecture – secular architecture- an architecture that will be perceived as being meaningful from a multicultural point of view. It examines sacred architecture in its native habitat and its socio-economic effects. It also examines sacred architecture displaced from its native habitat and its effects on the new place.

This topic is very close to my heart since it has found a way of connecting something that’s so personal in an academic way – Hindu Temples in India. This is mainly a research on the comparison and contrast of the Hindu temples in India and the United States. Hindu temples have always dominated the skyline in India. Temples in this case are in their ‘natural habitat’. They were built in a certain way and their evolution has really been quite remarkable over the years.

Part B deals with the background of India and how Hindu religion is expressed through architecture. Hindu temples, the importance of religion in the everyday life of people, the temple’s role in economy, examples of ways of construction and also the temple’s sacrality being tainted by social class system.

Part C deals with the Hindu temples across the world in the United States. It discusses how immigration has helped the United States to grow as a nation and with Indian immigration is a big part of the United States immigration history. It has influenced the cultural landscape with the Hindu temple building. It discusses the changes in the temple building over the years and also the impact of the temple in the neighborhoods that it is located.

Part D deals with the analysis of present day situation in Ames, Iowa. It deals with my perception of what I see as an ideal ‘place of worship’. The argument is that a place of worship can change its primary function to being more secular in a place that’s unfamiliar with the temple. This
way, it could act as more of a multicultural center and serve the Indian population as well as the wide international community.

**Faith, Worship and Architecture**

**Faith**

Faith is belief and trust in and loyalty to God. It is that part of us that has a connection the inner self. It is belief in the traditional doctrines of spirituality. It is complete trust in something for which there is no scientific proof. We all have a strong natural need to somehow give spiritual nourishment to that part of God that dwells inside of us. (Wiles, Maurice, *Faith and the mystery of God*). For most, the only way to get ever closer to God's harmony and well-being is by consciously practicing various spiritually-oriented activities. This gives them a sense of security, that they are closer to God and that they are being watched over.

![Figure 1. Gathering of people for a religious occasion](source: Pritesh Jasapara)

Going all the way back to Sanskrit, we find that the root word of god is *invoked one*. Invoke means *to call forth, to summon*. So in this context, God is whatever we call forth and give power to. This is gives rise to different faiths as different people take different paths to reach the same goal.

It fosters a sense of unity and brotherhood as communities of faith gather to pray together. It ensures the spiritual well being for those who are not fanatic about their faith. There are those who are firm believers in their faith and are oblivious to the rest of the faith. They are interested in only the propaganda of their faith. Then are the others who not just firm believers in their faith. They are
almost fanatic about it and this might work against the true essence of that faith. Such people are usually averse to the idea of other faiths and do not respect them either. (Smith, Wilfred Cantwell, *Faith and Belief*)

![Figure 2: Demolition of Babri Masjid, Ayodhya, India](www.cnn.com)

Worship

Each of these faiths exists in different parts of the world. This has given rise to so many faiths, which have very high values and belief systems. Each of these belief systems has different ways of worship and different customs. So many different faiths add to the cultural richness of the place they are in and also to the entire world. Worship is a gesture towards God. So these gestures - a set of fixed actions and sometimes words performed regularly, especially as part of a ceremony - are called rituals. Rituals are a part of any form of worship, since a certain gesture is imperative in the action of worship. There are many biblical references to the expressive movements of worship, which include bowing, kneeling, lifting and clapping the hands, processions, and festive dance. These again vary widely depending on the particular faith and the place in which it is practiced. Over time, these rituals and ways of worship have evolved to suit the needs and situations of today. Therefore, each of the faiths has a very unique history that describes the process of change. (Holm, Jean and Bowker, John, *Worship*)

Architecture

We all have a strong natural need to somehow give spiritual nourishment to that part of God that dwells inside of us. There is a need to fulfill the sense of belonging that most faiths have and an
urge to attain peace of mind, feel good, and successfully go through life. As we try to fulfill this imperative need, and to sustain such organizations with our attendance, most of us attend a church or a temple or some kind of congregation or other.

For a believer, a religious institution is a manifestation of his religion. It is what distinguishes the rest of the world from what he believes in. He is aware of the sacred since it manifests itself, as something completely different from the profane. No space is homogenous for a religious man; he experiences interruptions, breaks in it; some parts of space are qualitatively different from others. A sacred space for him is what he would perceive as a strong and significant space since this holds some meaning to him. Not all structures hold the same value. (Eliade, Mircea, *The sacred and the profane: the nature of religion*)

For example: A church or a temple is different from the structures around it, for any believer. The door that leads to the religious institution or the threshold between the institution and the surroundings is where the difference is. It is where the two places separate and yet is the place where the two places communicate.

Figure 3: Temple  
Figure 4: The holy mosque at Mecca  
Figure 5: St. Peters, Rome

Sources: www.mandirnet.org, www.netmuslims.com, Masters & Mastersworks Productions, Inc

Architecture, in general, is a powerful language for any culture. This holds very true for religious architecture since it is the medium through which a faith is propagated. Each faith has developed its own style of architecture with which the particular faith is identified. Some of the
architecture is a result of the various specifications in the scriptures that specify the needs for that faith. Some of the religious architecture has evolved to suit the needs of the particular faith.

For example: Steeples, spires are characteristic of churches. Tall towers with colorful sculptures are typical of temples. Mosques are structures with domes on them. Therefore, each faith has used architecture to create a niche for itself in the world and that's how people of other faith identify the faith that they are just aware of. (White, Anthony G., Religious architecture, Hindu: a selected bibliography)

Race, Religion and Attitudes

Race

A class or kind of individuals with common characteristics, interests, appearance or habits as if derived from a common ancestor may be defined as a particular race. A race of people together as a community, interact with one another, develop a common social background and similar habits and lifestyle. They develop a unique culture that becomes an important part of the race’s “natural habitat”. (Jacobson, Jessica, Ethnicity and religion)

Living and residing in their “natural habitat” develop certain behavioral aspects of the race. These behavioral aspects are affected by the displacement of their “natural habitat”. Once a person is out of his “natural habitat”, everything is new and unfamiliar. The race of people around him are different in every way- they look different, follow different faith maybe, behave differently etc. A person may encounter some difficult times and crises in daily life. For example, communication difficulties may occur such as not being understood. In this stage, there may be feelings of discontent, impatience, anger, sadness, and feeling incompetence. This happens when a person is trying to adapt to a new culture that is very different from the culture of origin. Transition between the old methods and those of the new country is a difficult process and takes time to complete. During the transition, there can be strong feelings of dissatisfaction. The surroundings in the new place also look different. The architecture of the new place, landscape, skyline is all probably different from his/her
"natural habitat". This inevitable phenomenon is commonly known as "culture shock". (Furnham, Adrian, *Culture shock: psychological reactions to unfamiliar environments*)

The term, culture shock, was introduced for the first time in 1958 to describe the anxiety produced when a person moves to a completely new environment. This term expresses the lack of direction, the feeling of not knowing what to do or how to do things in a new environment, and not knowing what is appropriate or inappropriate. The feeling of culture shock generally sets in after the first few weeks of coming to a new place.

We can describe culture shock as the physical and emotional discomfort one suffers when coming to live in another country or a place different from the place of origin. Often, the way that we lived before is not accepted as or considered as normal in the new place. Everything is different, for example, not speaking the language, not knowing how to use banking machines, not knowing how to use the telephone and so forth. The feeling of being 'out of place' is a common part of 'culture shock'. (Ianni, Francis A. J., *Culture, system, and behavior; the behavioral sciences and education*)

This phenomenon is not just restricted to the person who is 'out of place' People who interact with someone 'out of place' also experience 'culture shock'. For most people, their exposure to a culture different from their own is very limited. Their behavior is probably very different from the person who is 'out of place'. They may most probably not share the same language. At such times, they do not know how to react or behave with the 'out of person' person.

**Religion**

Religion may be defined as the body of institutionalized expression of sacred beliefs, observances and social practices found within a given culture. It is one of the systems of faith and worship. Religion forms the basis for many cultures. It is the binding factor for many cultures as it gives a sense of identity and security. (Jacobson, Jessica, *Ethnicity and religion*)
Many of the early civilizations based their very existence on religion. It helped them to develop their art and architecture. For example: In India, religion is best expressed through art and architecture. In many ways religion is art and vice versa.

Early civilizations such as Indus valley civilizations have expressed religion through art mostly. The excavations reveal very high quality of work. For example, this is brought out beautifully with the help of sculptures, seals and paintings. (Grover, Satish, *The Architecture of India*). Religion forming the basis for some of world’s greatest architecture will be a significant part of my thesis. This will be explained in further chapters.

**Attitudes**

Being in one place for a certain period of time, influences one’s thinking and develops a person’s personality. Interaction with people around adds to the character of the person. It is completely understandable for anyone, who has lived in one place for a long time, with limited exposure to people from other cultures, to be interacting with someone ‘out of place’ and not being able to handle it well. This is again an instance of ‘culture shock’.

The way ‘culture shock’ is handled varies from person to person. It also depends on the person’s personal upbringing, background, nature etc. Some people live in places where they would have more exposure to people from other cultures. But, in my opinion, no matter how much a person is exposed to different kind of people, he/she is never completely prepared for ‘culture shock’.

It may be handled in different ways- it ranges from disliking the new culture to liking it. It could also be being suspicious about it to completely avoiding it and staying aloof from it. Attitudes of a particular group towards another religion, culture shock are seen very often in everyday life. (Ianni, Francis A. J., *Culture, system, and behavior; the behavioral sciences and education*)
For example: The Taliban rule in Afghanistan is an extreme case of religious fanaticism and how it can affect the lives of millions. It is ironic how a religion can unite an army of people willing to die for the religion — at the same time, the same people can kill innocent lives to spread a ‘noble cause’.

Contorted thinking and ideas of the Taliban and Al-Qaeda is what united them in the first place. They share the same fanatical obsession — imposing a strict and distorted brand of Islam on all Muslims and bringing death to all who oppose them.

Under the pretext of establishing a ‘pure Islamic state’, a reign of terror was unleashed- opposition of freedom, heavy-handed oppression of women, banning of music, public executions, hatred and atrocities against other ethnic groups.

The Taliban attitude towards other religions is simply that of disrespect. Afghanistan, a Buddhist center before Islamic conquerors invaded around 1,400 years ago, was famous for its two massive and ancient Buddha statues in the central province of Bamiyan, dating back to the second century. They are believed to be among the tallest standing Buddha’s in the world. Museums around the country host smaller but equally important Buddhist figures and other priceless statues. Even though the statues were in Afghanistan, they were really world heritage sites.

The leader of the Taliban Islamic militia in Afghanistan shrugged off international condemnation of his order to destroy these ancient Buddhist statues, saying, “All we are breaking are stones.” The Taliban did just that as they rained rockets and shells on the two ancient stone Buddhas. (USA Today, 03/22/2001)
Thus the attitudes of people surrounding a culture are a significant factor for its presence and well-being.

**Hinduism in the United States of America**

America is home to immigrants from all around the world. Since 1965, immigrants have come in large numbers to the United States from India. Impelled by personal initiative, each immigrant comes as an individual but is soon identified as a part of a group.

It is through these groups that a person expresses his/her ethnicity and develops their relations with the host society. Religion is an important aspect of preserving and forming individual and group identity. Indian Hindus have tried to uphold their ethnic identity by preserving Hinduism in every possible way.

Hindus and their traditions that they bring with them reshape, develop and have a significant impact on the culture and religion of the United States. Hindus have contributed significantly to the architecture, culture and religious nature of the United States. One of the ways they have done this is by temple building. (Tweed, Thomas A.; Prothero, Stephen R., *Asian religions in America: a*
This thesis is a comparison and analysis of Hindu temples in their ‘natural habitat’ – India and Hindu temples ‘out of place’ – United States. It will, hopefully, be able to clearly present the evolution, styles and differences in temple building both within India and the United States. I hope to present the importance of a sacred space and its impact on its surroundings. It presents temple architecture in India as a very sacred space untouched by ‘profanity’ and creating a sacred environment around it. The sacred spaces in the United States begin to change themselves and adapt themselves to the surroundings. They begin to question the laws of sacredness as will be explained further with examples.

In this thesis, I hope not only to learn more about Hindu temple architecture but also its social implications both in India and the United States. Hindu temple architecture has been very rigid earlier- conforming to the social conditions and set rules in society. But that has changed with change in time and globalization. The change in attitude has freed up the religious experience. Temples are not restricted to and for certain people. The temple building experience does not include social hierarchy as it used to.

The final exploration of this thesis examines what is briefly explained above- degree of secularism. It questions the predominance of sacred space over the secular space. It talks about the validity of religious architecture and secular architecture. The boundaries between the secular architecture and the rest of the world are a porous one- if we allow it to be- and should it be encouraged?
Origins of Hinduism

Indus Valley Civilization, Aryans and Dravidians

India's earliest documented civilization, called the Indus Valley Civilization flourished along the Indus River before the 3rd millennium B.C. It is believed that they immigrated from Sumeria. The map below indicates the pattern of immigration. It was also referred to as the Harappan Culture. A very highly organized race, with well-planned cities, it was religious minded and a rich culture. They were also referred to as the Mother fertility cult as they revered the "Mother Goddess." Various sculptures, artifacts, etc revealed through excavations prove that the Harrappan culture was highly developed with an advanced system in architecture and religion. How the civilization declined is a big mystery- some say it was due to the invasion of the Aryans and some say it was due to natural calamities like floods. (Grover, Satish, *The Architecture of India*)

![Immigration pattern of the Harrapans from Sumeria](image)

Figure 8: Immigration pattern of the Harrapans from Sumeria

Source: Grover, Satish, *The Architecture of India*

The original inhabitants of the Indian sub-continent are believed to be the Dravidians. The Aryans, a nomadic group of people from Central Asia, pushed them further to the south of India. The Aryans invaded the northern part of India in the middle of the 2nd millennium B.C.
Rise of Hinduism

Religion formed the basis for the Harappans, Dravidians and Aryans. Harappans worshipped the Great Mother, while the Dravidians worshipped natural forces. The Aryans brought with them the religion called Vedism. The Mother fertility cult, devotional practices of Dravidians and the patterns of Vedism all combined to form the religion of Hinduism.
The emergence of this new religion, which was to form the main culture of India and put India on the cultural map, soon found its most profound expression through art and architecture. This developed to the extent that art and architecture was religion and vice versa. Religious architecture of Hinduism was expressed through building temples. (Michell, George, *The Hindu temple: an introduction to its meaning and forms*)

In Mircea Eliade’s words, “In the great oriental civilizations- from Mesopotamia and Egypt to China and India – the temple received a new and important valorization.” (Eliade, Mircea, “The sacred and the profane: the nature of religion). Temple building has evolved since then to this day varying in styles, materials depending on which era they were built and according to social conditions as mentioned previously. Temples built in North India varied greatly from temples built in the south; this was because of constant invasions from the north. These invasions interrupted the temple building process as well as development, which made them distinct from the temples from the south.
Class System

As the culture of the country developed, the social life also developed along with it. It is peculiar because of the extreme social segmentation which it produces; it is also peculiar because it is not a purely social system but is so closely interwoven with Hinduism as to have certain religious elements. Each member of the Hindu community belongs to one or other of over 2,000 castes, which divide into groups arranged in a complex system of social differentiation. As between its members, a caste is a bond of union, but the system splits up society into sections which, owing to the prohibitions not only against inter-marriage, but also against eating, drinking, and even smoking together, prevent social fusion more perhaps than any other institution in the world. The caste system thus at once unites and divides thousands of groups, but its salient feature is mutual exclusiveness, for each caste regards other castes as separate communities with which it has no concern. The system does not however preclude association for common purposes or social intercourse, for subject to the restrictions, which it imposes on mutual hospitality and matrimonial connections, members of different castes may be on terms of intimacy or even friendship. The caste system is the antithesis of the principle that all men are equal, for there is a hierarchy of castes, based on the principle that men neither are nor can be equal. (Michell, George, Hindu art and architecture)

The caste system had a direct bearing on a person’s profession, as it became a way of life. The different castes rank as high or low according to the degree of honor in which they are held by the Hindu community as a whole, subject to the pre-eminence of the Brahman, who forms, as it were, the apex of a pyramid in which other castes are superimposed in layers, one upon another Brahmans, an order of priests and law-givers, who represented the world of religion and learning; Kshatriyas, the fighting and ruling class; Vaisyas, who were engaged in commercial, agricultural, and pastoral pursuits; and Sudras, whose life was one of service to the other three classes and who also obtained a living by handicrafts. These four classes were called varnas, a word meaning color, which undoubtedly had racial implications. The distinction between the four was, however, not based on
race but partly on occupation and partly on religion. The first three classes had a spiritual birthright, which was denied to the Sudras. They were recognized as 'twice-born', i.e. they went through a ceremony of initiation at an early age which made them eligible for religious rite. The Sudras had no such religious privilege and were from birth to death under a religious disability marking their inferior status.

This in return affected the way temples were built as the architecture conformed itself to the social hierarchy. The temples were built with the sole idea of catering to the upper classes and their needs and ignoring the lower classes.

**Temple Architecture in India**

**Social Issues concerning Temple Architecture**

Every work of Hindu architecture must be regarded from a *metaphysical point of view* – of some unseen, unheard, sacred place or power. Hindu temples are a good example of where architecture impacts people’s life in a profound way. In India, traditional and sacred environments are basically related to their meaning, that is, sacred meaning. Hinduism sees the human life as merely a journey towards ultimate liberation.

Figure 12: A Stone representing a God

Figure 13: A wayside temple

Source: Mookerjee, Priya, Pathway Icons, *The Wayside art of India*
It is this kind of view that largely determined the process of temple building. The temple is not only a place of worship, it is "the house and body of the deity, its fabric is the very substance of the divinity." (Michell, George, *Hindu art and architecture*) For example: one of the features in a temple—the gopuram/shikara—a vertical spire on the temple, does not have any functional reason for being built. Among the reasons, for it to be built on a grand scale is that it is literally meant to point heavenwards to God.

Figure 14: Lingaraj Temple, Bhubheshwar

Source: Stierlin, Henri, *Hindu India*

"'In the world of man, the temple functions as a symbol of ultimate enlightenment; it is the house of the gods among men, the place where the gods may be approached and divine knowledge discovered.' (Michell, George, *Hindu art and architecture*) As Michell says, it is more than a house of worship, it is also a place where someone can approach the Gods with their problems and seek solace and divine knowledge could be imparted. Hence very rarely did a town exist without a temple. Strong religious convictions in India along with majority of the Indian population being Hindu, the existence of temples on a large scale was imminent. Presence of temples meant stability of the town. To ensure the stability of the town, the temple had to be properly planned.
To almost any believer, it is a connection between the world of mortal human beings and the world of God. There is really no distinction between regular lifestyle and religious life for a devout Hindu. Every action could potentially have a religious implication to it. This contact is established at home in the form of a small altar with a deity and outside the home in the temple. The existence of a temple in any neighborhood meant more than just a place of worship. People could easily adjust to the presence of a sacred space in their neighborhood. Life was considered more pious in and around the temple. It meant a change in a person’s behavior if he/she passed by the temple. Such meanings held great importance when a temple existed within its vernacular surroundings. This feeling still exists when a temple project is embarked upon. (Michell, George, The Hindu temple: an introduction to its meaning and forms)

The journey to the temple or any holy site is a sacred one. It is a different realm since it is a spiritual journey. In India, this journey is determined by the different ways in which the temples are planned. It also works towards directing movement to and around the temple and also directing lines of sight. The town is planned in such a way so as to have temple located at the center of the town. This is to highlight its importance. But this is not always possible because of the terrain of the town or other reasons. But the aim is to have the temple as the strategic center if not physically the center of the town. This is done by the temple structure itself. It has a set of monumental structures, which tower over the rest of the structures in the town. They are adorned with colorful sculptures in the town. They are adorned with colorful sculptures of the deities that make the temple eye-catching miles away. The pattern of movement to the temple in the temple and around the temple are all planned to direct and concentrate lines of sight to emphasize the importance of the temple.

In Hindu temples, the movement is very vital- circulation and circumambulation- since it denotes one’s journey to a sacred space. It also is the journey around it, which symbolizes a transcendental journey worshiping the idols of the deities.
Choice of materials was also done with equal dedication, as this was the mystic equivalent of the body of the God. Various types of stones were considered to be spiritual representation of the Gods.

**Culture, class system** formed close relations with architecture, especially, temple architecture. It led to segregation various classes even in temples. The class of the person, the way it was used or associated determined the usage of the temple. This was because the class of the person determined the profession of the person. The Brahman, considered to be the highest of the classes, enjoyed all kinds of privileges socially. Since they were the learned class, the priests for the temple came from this class. They led a very religious life as they set down their ideas and beliefs, documented temple architecture in the form of 'shastras' that prescribed the right way to build temples. (White, Anthony G., *Religious architecture, Hindu: a selected bibliography*)

From the Kshatriya or warrior class came the rulers of the kingdoms. The vaishya class who were the business class engaged in trade, art and architecture. As developers of temple architecture were concerned, the patrons and builders of the temple came mostly from these two classes. The shudras were the lowest class and were servants to the higher class. They had very little or nothing to do with the temples. The shudras were not permitted to enter the temples as their presence 'contaminated' the sacrality of the temple. (Grover, Satish, *The Architecture of India*)
Caste system was reflected in domestic architecture - Brahmans lived in tallest houses. Entrance to the house was determined by the caste of the person. The entrance for Brahmans was to the south, kshatriyas to the west, Vaishyas to the north and the Shudras to the east. (Pothorn, Herbert, A guide to Architectural Styles)

Figure 16: Plan showing the housing units
Source: Pothorn, Herbert, A guide to Architectural Styles

Political Situations played a huge role in Temple building. Pre-Colonial India comprised of present day Pakistan, India and Bangladesh. As stated before, it was not ruled under one single government. It was comprised of many different states ruled by different kings from different dynasties. States were annexed into one's rule by declaring war at times. So the influence of each dynasty in the region was felt through the architecture among many other ways. Apart from that it has faced invasions from the northeast by different races. So the type of architecture differed according to the ruling dynasty or the ruling race at that time. (Pothorn, Herbert, A guide to Architectural Styles)
The kings themselves heavily funded the temples. The temples were seen not only as a place of worship but also as the glorification of the dynasty that built them and also glorified the town it was located in. During these times, temples and royal families were crucial institutions – almost synonymous with one another. The two together had a vital effect on urbanization. For example: The two major temples (Shiva, the main deity of the temple) in Tanjavur and Madras in South India were the royal chapels of the ruling Chola and Pandya dynasty. Both the dynasties lavished their wealth on the building of these temples and adorning it with deities. This attracted a permanent settlement of the priests at the temples and the regular visits of pilgrims in large numbers. (Stierlin, Henri, *Hindu India*)

Figure 17: View of Meenakshi temple, Madurai (1623-1659 A.D)

Source: Stierlin, Henri, *Hindu India*

**Economic status** of the ruler and the town determined the Temple architecture in each town or under a dynasty. The richer the ruler and the town, the prosperity was automatically reflected by the temple's monumentality and elaborate artwork.

The temple's other sources of funding besides the royal patrons were rich individuals. They made donations to the temple funds in the form of money, clothes or food or any other way they deemed appropriate. 'Donations might be made for a number of reasons, including gratitude for
services rendered by the temple, or perhaps in fulfilment of a vow.’ (Michell George, The Hindu Temple, An Introduction to its Meaning and Forms, pg 58) In this way, the temples grew richer.

As the temples became wealthy, they were not only places of worship; they were also ‘employers’. Investments of the temple funds were made in the form of land, which were divided among various tenants of that particular town. The lands were to be utilized for cultivation and other purposes that would be beneficial to the temple and the town. The economy of the town was boosted because of these arrangements. Methods of payment to the temple were devised which would be beneficial to the temple, tenants and the town. Sometimes, part of the produce from the land was donated to the temple for its daily rituals. At times, the tenant would render services of some kind on a regular basis to the temple. The produce of the land would be utilized for trade purposes after having been donated to the temple. This was a sacred arrangement and the tenants were very honest about every dealing since the temple protected them. As the agriculture improved, the temples would take upon projects that bettered the living conditions of the town as a result. These were projects such as irrigation systems, water tanks, canals and roads to name a few.

In return temples served as a boost to economy. As mentioned earlier, it attracted a lot of people to settle in the respective towns. It served as job resource since many people started working for the temple. Some worked as clergy, some as administrators. Other activities such as arrangements for the temples- flowers, fruits essential in the everyday rituals – required someone to supply it on a regular basis. Hence many people were permanently engaged in this business of selling flowers and fruits and other essentials. Blacksmiths, carpenters, tailors, sweepers, painters, sculptors, potters etc were constantly engaged in activities related to the temples. There were other activities that generated because of the temple such as music, arts, crafts, handlooms, painting etc. Therefore musicians, singers, dancers along with their supervisors, artisans were also required to keep the temple’s activities running smoothly. (Pothorn, Herbert, A guide to Architectural Styles)
Urban Development

The temple was not limited to being a house of worship. It was the powerhouse of energy – since it generated jobs for the town it was in. It helped people to set up their homes around the temple. It was an architectural marvel for the town and its ruling family. It became a central force from which artistic activities were born. The temple was an artistic achievement with its beautiful sculptures, paintings and the architecture on the whole. The temple was seen as center of learning too. It would have classes for mathematics, astronomy, and languages. Brahmans would impart their knowledge in these fields to the students- who were also Brahmans. Apart from this knowledge, the spaciousness of the temple halls permitted other cultural knowledge to be imparted to the other classes of the society. This included hymns, prayers, dance and music to name a few. Music and dance were always a part of Hindu rituals. These classes added energy to the temple’s activities. Bigger temples would have their own musicians and dancers to perform cultural activities during festivals and other ceremonies. Thus the temples of yesteryears in India were schools in themselves in architecture, culture, sculpture and painting. They in their own way were secular as they brought together so many people of different castes in the making of the temple – even if that was not the intention of the higher classes. Along with being a place of worship they helped to develop the culture of the town. (Pothorn, Herbert, A guide to Architectural Styles)

Planning of Hindu Temples

Spatial planning of temples was done with keeping in mind social practices. Temple planning as mentioned before was done with a spiritual implication to it. The most elaborate rites that would ensure the security of the shrine on the ground that it is built upon prescribe the plan. This was done to ensure the exact reproduction of the heavenly abodes. The plan laid out in a square, which is further divided into a number of smaller squares. Each square is dedicated to the gods around the central deity. This also conforms with references to the positons of the earth and other planets.
The underlying principles for designing buildings, towns etc in ancient India are based on Vastu Shastra. VS plays a big role in emphasizing design based on person-place relationship- be it for a sacred or a secular place. These principles are extended out to the neighborhood in which the sacred place is located.

“The term Vastu, defined as “where immortals and mortals live” means the site; vastu what is designed, ranging from ornaments, furniture, vehicles, architectural details, gateways, drains, water tanks, gardens, buildings, streets, and settlements of all sizes and types. In this concept, architectural design is not limited to buildings- it is a comprehensive category encompassing artifacts made at various scales which also may be considered dwellings.” (Sinha, Amita. “Design of Settlements in the Vastu Shastras,” Journal of Cultural Geography, Spring-Summer 1998 v 17 i2 ,p27.)

Before the design stage, measurement of physical space is the first step. This ties with the importance of human body in the design of a physical space.

“The organic theory of design provides a metaphysical explanation as to why the human body is coterminous with designed spaces. In architecture and settlement design ideal diagrams are used in laying out spaces.” (Sinha, Amita. “Design of Settlements in the Vaastu Shastras, “Journal of Cultural Geography, Spring-Summer 1998 v 17 i2, p27.)

These diagrams make up plans. The diagrams are very specific- square, circle, triangle, wheel with spokes, swastika, or a bird with two wings. The area is equivalent to seven and a half squares and the side of each square is equal to the height of a human figure with arms uplifted called a purusha. The plan that is derived with the help of the diagrams symbolizes the cosmic entity and is called a mandala.

The Vastu Purusha Mandala dictates temple architecture. The purusha is shown as an anthropomorphic form fitted into a square with his head facing east or northeast. Both the geometric and organic forms are coterminous. The Vastu Shastra describes a set of mandalas that can be used for building and town plans. It also prescribes the setting for the various multiple enclosures in the South Indian temples, which are divided into four zones. The temple complex occupies the center of
the zoning. The royal place complex and the neighborhood of the higher castes are built next to it. According to the caste hierarchy, the rest of the settlements are built. (Cox, Kathleen. Karn, Allison Eden., Vastu living : creating a home for the soul)

Note: This kind of planning took place at a time when caste system was very rigid. Town planning, then, happened keeping in mind the preferences of the so-called upper caste. Times have changed since then and caste system is not prevalent in India. Towns are not planned based on caste system and neither is the temple restricted for the so-called lower caste.

The towns are planned in a concentric way or radial streets converging at the center, or streets that intersection in a cross shape. As mentioned previously, these centers are usually the site for the temple complex. The number of streets and the entrances further highlights this. The entire plan symbolizes the cosmic belief- that the universe exists and begins from the center. The use of modules such as squares and circles along with the human body is prominent in vastu. This extends to the sculptures used in and on temples. The height of the deity in the temple determines the width of the sanctum and height of the main door of the shrine. The temple enclosures are thereby determined by the width of the shrine. The Vastu Purusha Mandala regulates the plan of the temples. The central point of the temple is allocated to the 'garba griha' or inner sanctum of the temple- where the main deity is. Around the inner sanctum, the shrines for the demi-gods are allocated. These become the circumambulatory paths for the worshipper. Entrances and gateway locations are prescribed according to cardinal directions.

These principles find their way into the planning of other kinds of structures. The applications of Vastu Purusha Mandala are not rigidly applied in housing as it is in temples. But the influence of these ideas is evident in housing, which have courtyards in them where the rooms of the house surround the courtyard on all four sides.
Figure 18: The Vastu Purusha Mandala


Figure 19: Mandala square for a shrine


Figure 20: System of determining proportions for a shrine other than the mandala

Although the principles of Vastu Shastra were not enforced in the planning of every city /town/temple, its influence is definitely seen. For example: The city of Jaipur, in the state of Rajasthan (north-west part of India bordering Pakistan) was not planned according to Vastu Shastra. This city has hills, which protect it on the north and east. The ancient ‘shastras’ that was used to plan it resulted in the city having nine squares (one displaced towards the southeast due to a hilly terrain). The temple complex and the royal complex occupy the center. Modular proportions are used to work out the street patterns and its dimensions.

Today, even after a little more than two centuries, the city has not lost the splendor that it was intended to have. The design principles influenced by the Vastu Shastra are not lost because it is old. Experts and students alike for the urban quality of the public spaces, street patterns, buildings and temple complex study it. It is an example of a built environment with a comprehensive urban design and also environmental design. (Pothorn, Herbert, *A Guide to Architectural Styles*)

Figure 21: Plan of Jaipur, Rajasthan

Materials:

One of the earlier texts on temple building recommends stone as the most appropriate material for temples.

**Note:** Since this is one of the texts documented by the priests who looked down upon the so-called lower castes, in my opinion, there will some amount of error in judgment. The judgment is as a result of opinions being clouded by the supremacy of class over another class.

"Stone or wood is worthy of the gods, Brahmans, kings and hermits but unsuited to vaishyas and shudras." Says one of these texts. (Michell, George, The Hindu temple: an introduction to its meaning and forms) In this way, stone was related to the class system. But many other shastras do not restrict its use to any other kind of temple. Among the other materials that were popularly used were brick, wood, mud and plaster. The re-use of materials is strictly prohibited by the Shastras. This is because the materials from other temples have already had an identity (spiritual). Contrary to this, older materials have frequently been used in temple building.

Brick is a material that is widely used in India. It was one of the oldest materials to be used in temple building. It dates back to the Christian era in Buddhist, Jain and Hindu temples. (Michell, George, The Hindu temple: an introduction to its meaning and forms)

Sculpture is widely used in temple architecture. Stone brings out the most intrinsic qualities of the sculpture. Temple architecture is, aesthetically and technologically, most beautifully expressed through stone construction. The technique of stone cutting and laying it and bringing to life with the help of sculpture is unsurpassed. There are two ways of achieving a stone temple is built:

- **Dry stone structural masonry** - In this method, stone is cut and laid one on top of the other without using any mortar. This is one of the most advanced building techniques in India as well as other parts of Hindu Asia. Some of these temples, which had no mortar bonding between the stones, would have iron pegs in sockets in the adjacent faces of stone blocks that would hold them together. A very organized building program was designed to erect a structural temple. If
the temple were to be built of brick- the bricks would be baked on or near the site. There was also a spiritual reason for using bricks.

"The use of brick goes back to the making of altar and tombs in Vedic times, so that a certain sanctity became attached to it as a particular appropriate fabric for the building of sacred edifices.” (Rowland, Benjamin; The Pelican History of Art)

Local stone quarries were utilized for stone temple construction. This stone is believed to have been transported to the site on wooden rollers, which were pulled by elephants. Another mode of transportation was by floating the stone on barges along the river or canals. On site, masons roughly shaped the stone blocks and they were hoisted on pulleys on scaffolding. The extremely heavy members would be placed with the help of ramps made of timber or sand. Craftsmen such as stone masons; sculptors and carvers each had their specific job, which resulted in division of labor. Iron clamps and wedges were used to position and hold stone slabs together. At times, iron beams were used to span huge halls. Important supporting members were almost always stone columns. The post and beam construction was the prevalent mode of construction.

Different carving and building techniques were achieved because of the differences in the stone. For example: Granite in the South, finely grained yellow sandstone in Central India and the volcanic stone that is used in Java, Bali in Asia. Impact on the construction methods and variation in possibilities of style was mainly due to the availability of natural raw materials-, which depended heavily on the region. For example: Soft stone material such as ivory and sandalwood brought about the intrinsic detailing done by the sculptors. The hard crystalline rocks like granite was the reason for shallow relief work found in the Pallava dynasty temples. Brick temples were very typical of temples in West Bengal.

- **Carving into solid rock** – Some of the temples have been literally sculpted out of rocks- either monolithic pieces of rocks or mountains to create cave temple For example: Temples at Ajanta, Ellora and the temple caves off of the coast of Mumbai- Elephanta Caves.
Indian architecture was radically changed due to the influence of rock-cut architecture. Artificial cave-temples by the Jain and Buddhist sects—carved out of the mountains became the precedent for stone construction. Since these temples were constructed in the 2\textsuperscript{nd} and 3\textsuperscript{rd} B.C., there is no documentation for how it was built. The possible ways of construction can be deduced from the incomplete temple caves. From the traces left on the caves, it appears as if iron chisels and iron mallet were used.

Iron chisels were used to polish the rock face. The façade was then sketched into and incisions were made. To achieve a high chamber, a tunnel as high as a man would be driven into the rock just below where the ceiling was needed. Cutting steps did further widening and deepening. A stonemason did the rough work on each level and was followed by other artisans who cleaned, polished and gave final touches to the wall.

(Brown, Percy, \textit{Indian Architecture (Buddhist and Hindu Periods)})

Many features and principles of rock-cut architecture were used in the development of structural Hindu temples. Pure rock cut temples translated into other ways of rock architecture.
For example: In the 7th century. A new practice was introduced. Monolithic structural temples - achieved by carving a single rock- called 'rathas' at Mahabalipuram, in Southern India are a fine example of this kind.

![One of the rathas at Mahabalipuram](image)

Figure 23: One of the rathas at Mahabalipuram

Source: Stierlin, Henri, *Hindu India*

The temple was usually built out of rectangular blocks of stone. Chiseling into these stones helped the masons to outline critical features of the temple. Since the temple was carved out of a single piece of stone, joints between stones were very few. The few that are seen appear over cornices or through pilasters. The 'invisible' joinery highlighted the monolithic appearance of the stone temple. (Stierlin, Henri, *Hindu India*)

**Use of Color**

Color formed an important part of temple art and architecture. The color would highlight important features of sculptures and details of the temple. To add to the ornamentation to the stone and terracotta, plaster was used. In cases like the Kailasa shrine at Ellora, it was originally painted white to emphasize on the relationship to the sacred snow capped peaks of the Himalayas, which according to scriptures was the abode of Lord Shiva.

The painters experimented with the color to bring out space through use of bright colors, expressive gestures and mythic subjects. Art and architecture enriched with bright reds and blues
were eye catching. Use of forms of art, color, sound and incense, bring us into the presence, and power of the subtle nature. They become doorways into the subtle realms of religion and spirituality.
Part C – Rise of Hinduism in America

History of Immigration to United States:

Immigration has been the story for America for most part of its history. Americans, as one historian observed, have been “a people in movement through space.” (Tweed, Thomas A.; Prothero, Stephen R., Asian religions in America: a documentary history) At the time Christopher Columbus arrived in America, 1.5 million Native Americans lived in the U.S. He mistook this place he discovered to be the San Salvador in the Bahamas – for the Indies and called the natives Indians.

Following his arrival, the next two centuries saw an influx of the Europeans to the US that saw colonial settlement and businesses flourish. The Native Americans had to literally pave the way for the new settlers. Once the government passed its laws and had established a good economy, many more immigrants began to flock to the United States. A maximum number of immigrants were admitted to the US between 1892-1924, which led to a new law being initiated regarding a limit on the number of people that could be admitted to the US. This limit was decided based on number of people in the US from that particular country- therefore giving preference to relatives of people who were already in the US. Over the course of time, the laws have been adjusted so as to attract more immigrants with specialized skills. (Min, Pyong Gap, Kim, Jung Ha, Religions in Asian America: building faith communities)

Among the many immigrants to this country, people from the Indian sub-continent make up a fairly large number. Ever since the US ended its immigration quotas, in 1965, there has been a tremendous and almost immediate inflow of Southeast Asians. In the 1990s, there were more than 815,447 people of Asian Indian decent in the United States, and as many as 650,000 of them practiced Hinduism. People who have settled here have found their way of making the US their home.
To further reinforce this, the immigrants took to temple building. Their hope is to pass the traditional beliefs and cultural values that were instilled in them back home to the generations who will be brought up in a completely different world. (Tweed, Thomas A.; Prothero, Stephen R., “Asian religions in America: a documentary history). Settling of Indians has led to the establishment of Hinduism over time. This is a result of increasing familiarity of Americans with Indians and, especially, their Asian traditions. Contact between Indian immigrants and Americans has led to a relationship in a country that is very diverse in its cultural landscape.

Attitudes and reactions of Americans

Post 1965 saw the immigration of Indians in large numbers to America. Since then the American landscape and skyline has also experienced a lot of change. The post 1965 immigrants have had the good fortune of economic welfare, broad mindedness of the Americans and also being able to visit India on a regular basis, and most importantly – being able to practice their culture. The expression of a culture/religion in a foreign country is almost never authentic- it is difficult due to lack of 'natural habitat'. It is an experience that is recreated to fulfill the desires of the aliens' longing to be close to home. It is a compromise in many ways- a compromise to respect the existing way of life in a foreign land. It also tries to adopt the traditions of the place it is practiced in. This is a way of showing adaptation and also respect for the new culture. This is illustrated further with some examples. (Williams, Raymond Brady, Religions of immigrants from India and Pakistan)

For an American, it is an adjustment to something very alien – some welcome it as a sign of progress, some choose to remain oblivious and some seeing this as a danger to their free society show hostility. Culture shock is bound to set in, because not everyone is used to interacting with people at a global level. These characters are usually seen more prominent among Americans with close association with internationals.
People who have grown and lived in one culture all their life find it difficult to adjust to something that is ‘out of place’ as opposed to those who have traveled quite a bit and are accustomed to the ‘out of place’. A lot depends on the individual and his/her perception of the ‘out of place’. No matter what a more tolerant attitude fosters a healthy co-existence for both the cultures. Once the cultures learn to live with one another they seem to benefit from the other through support, business etc. This is also a learning process – learning about the other culture, adopting something good, ignoring the bad and most importantly developing a secular attitude. (Furnham, Adrian, Culture shock: psychological reactions to unfamiliar environments)

**Temple Architecture in United States**

**Social Issues concerning Temple Architecture**

With change in location, temple architecture and its functioning change quite a bit. The activities associated with the temple rituals do not remain the same but it has to respond to its population. **Adaptation to rituals** is one way of doing so. “The process of adaptation for immigration is complex, involving relations with already existing religious groups and the formation of strategies for maintaining identity as each religious group spreads across the country and establishes a national organization.” (Williams, Raymond Brady, Religions of immigrants from India and Pakistan: new threads in the American tapestry). This is not limited to within the religious group since it is not in its ‘natural habitat’. It has to extend out to the new place and incorporate some of the new elements in it for its healthy existence. Some of the rituals associated with temples are cited below.

- When a temple is built, and is ready for visitors, a prayer is first offered. The towers of the temple are bathed with the holy waters of the river Ganges (Ganga). The water from this river is considered very sacred for Hindus. The water bathes the temple and blesses the earth it is built upon. This tradition is considered to be very important and the blessings of the Ganga are very pious.

- Another important ritual are the prayers offered in the temple. The place where the temple is built/ situated is also included in the prayer. The prayer/hymn basically praises the place and hails it as
a pious place to be in. In most Sanskrit prayers, India figures as THE most pious place, since the religion is native to India. By singing about a place in religious songs, the place becomes or it is claimed to be part of one’s tradition.

(Vasudha Narayan, "Victory to Govinda who lives in America:” Hindu Rituals to Sacralize the American Landscape)

Adaptations to rituals are cited below

- United States has been perceived differently and integrated into Hindu culture by Indians living in the United States. This has been done in numerous ways. These are:
  a) adapting Sanskrit Puranic (sacred texts) Cosmology by identifying America as a specific ‘dvipa’ or island quoted in the texts;
  b) composition of songs and pious Sanskrit prayers extolling the American state where the temple is located;
  c) physically consecrating the land with waters from sacred Indian rivers and American rivers; and
  d) literally recreating the physical landscape of certain holy places in India, as in Pittsburgh or Barsana Dham, near Austin, Texas.

(Vasudha Narayan, “Victory to Govinda who lives in America:” Hindu Rituals to Sacralize the American Landscape)

Singing praises of Hindu Gods is another important part of Hindu rituals. These are no different for temples in America. Many songs have been composed glorifying these deities and the state where they are enshrined. For example: Dr. J. Sethuraman, professor of Statistics at the Florida State University, scholar in Sanskrit, has composed a poem that is very popular among the Indian immigrant population in America called Sri Venkatesha America Vaibhava Stotram ("Praise of the Appearance of Lord Venkatesha in America.") In this song, the Lord Vishnu, is praised as the deity in many American towns and states. This is another way how a
different culture and place is integrated into a completely different culture, thereby, adding to the pluralism of both cultures.

- The consecration of towers of temples in an important ritual. In America, the temples are not only consecrated with water from Ganga but also waters from the local rivers of America. In Hindu culture, water from Ganga is sacred as it is supposed to cleanse a person’s spiritual being. Ganga’s name is invoked before any auspicious function, where Ganga’s waters are not present or available. In America, waters from the Ganga and other sacred rivers from India are mixed with local rivers from America for the consecration of the towers. Thus, by doing so, the devotees are mixing waters from their homeland and also waters from their new homeland and thereby connecting with something distant and what is present in America.

- Some Indian cities/towns have borrowed names of sacred places like Banaras and Kasi (in North India). This, in a way, is to evoke the sacrality in the town which otherwise probably has no sacred elements to it. Temples that are being built in this country are also following the same practice. For example: As of now there are two Kasis in America – one in Michigan, the Western Kasi Shiva temple and one in Florida is the Kasi Ashram.

- As discussed previously, fusion between two cultures happens when they intersect in one place. The local Hawaiian traditions are also honored while conducting Hindu rituals. This temple is not an inter-faith temple; on the other hand, it is merely natural and most practical to respect the local temple while commemorating a religious place.

(Vasudha Narayan, “Victory to Govinda who lives in America:” Hindu Rituals to Sacralize the American Landscape)

**Cultural adaptations** form a part of the adaptation process. This is in many ways inseparable from the adaptations in rituals. But the changes that have to be incorporated to make the temple more culturally acceptable have been cited in this section. This has led to adaptation to architecture too. At the same time, these section also cites instances where the outlook of Americans
and overall, change in times, have initiated less of adaptations. This section talks about temples that have built in two different situations:

1. incognito (architectural adaptations)
2. traditional temple

America can be aptly described as a multi-religious country. It has become home to many nationalities- some more than the other depending on the majority. Some of the ‘first- generation’ religious institutions have remained invisible because of various reasons. Most of these religions, including Hinduism, were not immediately accepted in the American culture.

(Eck, Diana L, A new religious America: how a "Christian country" has now become the world's most religiously diverse nation)
Giving respect to existing social conditions and rules then, the evidences of these religions institutions were hidden, if not, invisible. For example: Earlier mosques were found in former watch factory, Queens, a U - Haul dealership in Rhode Island, a gymnasium in Oklahoma City. Hindu temples have been found in a warehouse in Queens, a YMCA in New Jersey and a former Methodist Church in Minneapolis. But, this kind of ‘hiding’ has also had another reverse effect on American Society. (Eck, Diana L, A new religious America: how a "Christian country" has now become the world’s most religiously diverse nation)

Americans, being unaware of these religious institutions and the culture because of the ‘hiding’ is quite natural and understandable. This has led to many misconceptions about societies that have existed for a very long time but, at the same time, have not been a part of American societies. But this scenario has slowly evolved where not only Hindu temples dominate the cityscape in many cities, but also mosques, Buddhist temples and other religious institutions are also a part of it. This dominance varies from state to state, city to city depending upon Indian population there and also the American understanding about and towards Indian culture.
There are temples that continue to exist and new temples being built in an 'invisible' mode. But changing times, more understanding of Indian culture, have also given rise to multi billion temple projects such as the Sri Venkateswara temple in Pittsburgh, the Meenakshi temple south of Houston and many others. Also, there are temples that are traditionally built but with a difference. The temple at Livermore, California has been built in a traditional way because of the materials. But the non-traditional aspect of the temple is the style in which it has been built. The temple is dedicated to two deities- Shiva and Vishnu. The occurrence of these two deities in one temple is very rare even in India. But it has happened here in the United States on a large scale.

The part of the temple designed for Shiva is like the temples in Orissa- Kalinga Style or like the northern style of temples. The part of the temple designed for Vishnu is like the Tirupati Temple - Dravidian Style or like the temples in the South part of India.

A Swaminarayan temple was to be built in Norwalk, California. Thirty Hindu families initiated the temple project in 1992. The site was near two Christian churches at Pioneer Boulevard and Ferina Street. This initiated the residents of the neighborhood who felt that this temple was unnecessary for eighty people. They felt the real reason was so people could get together and drink. They also felt it would attract many Indians and thereby cause crowding and traffic in the neighborhood. This is an instance of American unawareness of Hindu culture since some people felt that the Hindus would use this site for cremation.
Figure 26: Sri Venkateswara Temple, Pittsburgh
Source: www.svtemple.org

Figure 27: Livermore Temple, California
Source: www.livermoretemple.org

Figure 28: Livermore Temple, California
Source: www.livermoretemple.org
The temple was the dream of Natoo Patel, who headed the Hindu organization. The original design was in the lines of traditional Hindu architecture. It was supposed to be a two-story building with nine steeples, gold domes and intricate carvings. The neighborhood comprises mostly of small stucco homes, which were built in the 1950s. The two churches also belong to the same era. In other words, a traditional Hindu temple seemed completely unacceptable in this neighborhood that wanted to preserve its existing look. Patel had to rework the entire building. He had to consult with the city planners, traffic engineers and the residents to come up with a design that would be acceptable to everyone. (http://www.swaminarayan-online.org)

The temple's gold domes were replaced by red tile roof. Instead of intricate Hindu carvings on the entrance, curved archways have been used. The building was downsized to accommodate more parking spaces. A driveway was removed so traffic was diverted off of the residential streets to the Pioneer Boulevard. From the original plan of having a 15,000 square foot 530-person capacity temple, it was reduced to a 12,000 square foot structure with 322-person capacity. So the Hindu temple that exists now looks like a Spanish mission which is not least bit Hindu architecture but does blend in with the neighborhood. This is an instance where two cultures come in contact with one another and architecture that results from it is a result of influence of cultural habits and traditions. It is inevitable that one culture influences the traditional and architecture of the other.

Source: http://www.swaminarayan-online.org
A group of Hindus bought a former Baptist Church in Northridge, California. It was also to have a social center and a library. But the group that met with opposition from the pastor of the Church, who felt that it wasn’t appropriate for a Hindu religion to be practiced in a church. So the group had to contend with meeting up in the homes of Hindu families in and around the region.

As compared to the Swaminarayan temple in Norwalk, California, which looks like a Spanish mission, the Swaminarayan temple in Secaucus have had much less opposition. The Swaminarayan temple and Muktajeevan Swamibapa community Hall, was nearing completion in August 2001. It is a seven million dollar project, 22500 square foot building sited on 3.7-acre land on Penhorn Avenue in a warehouse district on the edge of wetlands.

As compared to its counterpart in Norwalk, this is much more of a traditional temple. It is a conglomeration of Indian and American motifs, which include skylights and picture window seats. The building has three main sections to it- prayer hall, quarters for visiting priest and a multipurpose room.

The prayer hall will have a shrine in a carved teak altar housing the marble deities. The multipurpose hall serves as a concert hall which seats 570 people or can be used for 300- people banquet. The hall has a stage, which is half of Broadway theaters’ stage. It has spotlights, dressing rooms and acoustic tiles to facilitate the occasional cultural activities.

Dharmabhai M.Patel, who is an engineer and manager with the New York City Transit authority, is very involved in the temple’s activities and construction. According to him, everyone from bank officials to the local officials has been cooperative. He feels that the people in Secaucus have been very hospitable. This is in stark contrast to the attitude of people in Norwalk who were very skeptical to the establishment of a similar temple in their neighborhood.
It appears that the reaction of a neighborhood to an architectural landmark of another culture depends largely on the region’s exposure to different cultures. The people in Secaucus, being close to New York City were probably more in contact with different cultures as compared to the people in Norwalk. An interaction at such a level, gives rise to more curiosity rather than wariness towards other cultures. A Hindu temple in their neighborhood, for them was probably a welcome change and a way to learn more about another culture. Here’s how architecture can act as a medium of contact between two different cultures and cause more of interaction.

**Political Situation/ Rules and Codes** have to be thought of in temple building in the United States. Like any other temple anywhere else in the world, temples in the US are also place of worship. But structures need to meet some code requirements which might alter traditional ways of building them or/ and ways of worship.

For example: Traditional ritual would mean burning of candles all hours of the day in India. But due to fire codes, candles are allowed to burn only during special codes. In traditional temples, nobody can walk into the temple with shoes on. But since in New Jersey, it can get very cold and snow is possible, people are required to wear shoes inside the temple. They have to remove the shoes before they enter the door to the temple.

Zoning laws for a religious structure in the US is always a very sensitive issue. To add to the complexity, is the issue of religious structures qualifying as "churches". Zoning laws and rules must respect religious freedom at the same time, bearing in mind, the public welfare, safety and health issues. Most of controversies occur when decisions of building a religious structure in a residential zone are made. (Wiltheford, David K., Zoning, parking, and traffic)

For example: Taking up a case of a church in Indiana, temple-zoning regulations can be compared and examined. Traffic regulations and parking enforcement were facing problems because the church would not be set back. After a lot of debate, the decision was in favor of the church. The
seeming traffic problems were not very important since the services in the church were held when traffic was light.

There have been other cases where church property was partly in a residential district at the time of purchase. The same problem of noise, disturbance was brought up. The issues that have been cited above apply in the case of Hindu temples too. The temple at Norwalk had to provide extra parking spaces, as did the church at Indiana- despite the fact that the churches that existed near these structures used street parking.

**Economic Issues**: Here mostly the religious or ethnic group as the case maybe funds temples. A board of trustees usually runs the temple and its activities.

**Urban Issues**

The temple building cannot be done without taking the urban issues into consideration. It has to conform and respect the surroundings and the cultural outlook for it to be successful within its own community as well as with the host community. Therefore, there are changes and adjustments to be done architecturally for it to be able to ‘fit’ in the urban picture. As mentioned previously, the temple at Norwalk is an example of a temple trying and fitting in the overall big picture of culture as well as urban issues. The temple still functions as a powerhouse of energy as it did traditionally in India. Only now it caters to people who are not in India and are trying to find something with which they can establish a connection culturally. It caters to a generation that has never known India. It shows a glimpse of what they could expect from India. It has changed its function from being purely a house of worship to a place of gathering for the Hindu community. (Eck, Diana L, *A new religious America: how a "Christian country" has now become the world's most religiously diverse nation*)
In many ways, the presence of the temple is a way of improving the economy of the place it is situated. It attracts not only Hindu worshippers but also other communities since it becomes a religious as well as tourist attraction.

**Planning of Temples**

**Spatial Planning**

Some Indian cities/towns have **borrowed names** of sacred places like Banaras and Kasi (in North India). This, in a way, is to evoke the sacrality in the town which otherwise probably has no sacred elements to it. Temples that are being built in this country are also following the same practice. For example: As of now there are two Kasis in America – one in Michigan, the Western Kasi Shiva temple and one in Florida is the Kasi Ashram.

Attempts are being made to recreate the sacred feeling by trying to **recreate the physical landscape and environment**. Trying to find the resemblances between American surroundings and sacred places in India, or, at least trying to recreate the same further enhances this. For example: Recreating a holy site that exists in India is challenging. More challenging is recreating the spirituality of the original place. This has been achieved to a great extent and is totally commendable in cases of Basarna Dham near Austin, Texas and the Iraivan temple, Kauai, Hawaii. The physical environment of Hawaii has been recreated in such a way to remind one of a place in India with a temple. The names are only Indian but the landscape has plants such as the forest hibiscus, fragrant vines along with the springs of fresh water etc. All of this creates a very celestial atmosphere that exists in the holy places in India. Basarna, in North India, is believed to be the hometown of one the Gods in Hindu religion. The very same atmosphere has been recreated in Basarna Dham in Austin, Texas.

The Vedanta Society in San Francisco built the first Hindu temple in the U.S in 1906. Next few temples to be built were the Hollywood temple in 1939 and in 1956 was the Santa Barbara
temples. These temples focused entirely on understanding the Holy Scriptures. The focus on worship of images/ idols in temples began only in the 1970s when the number of Indian immigrants increased, as explained earlier. (www.vedanta.org)

To be specific, Hindu temples in the U.S. during this period can be divided into two kinds. One as the ISKCON temples, which was set up to purely, spread Krishna consciousness (Krishna is one of the most popular Gods in Hindu religion). The second one is a strictly Hindu temple, which was primarily built for Hindu immigrants and to foster the feeling of Hindu culture. A.C. Bhaktivedanta Swami Prabhupada in New York founded ISKCON or the International Society for Krishna Consciousness. He started ISKCON to spread devotion of Krishna and envisioned a society, which would primarily thrive on 'guru'-disciple relationship and their ultimate relationship with Krishna. From the day it has been founded, it has encouraged people of all religions to participate in its activities.

The Hindu temples that are built for Hindu immigrants are more conventional as compared to the ISKCON temples (be it in India or the U.S.) These follow age-old rules of worship as far as they can be followed in a foreign country. The priests are from India and are trained to perform the various rituals and these temples do not aim at spreading, encouraging Hinduism among other cultures the way ISKCON temples do. At the same time, these temples do not close their doors to visitors other than Indian Hindus. (Eck, Diana L, A new religious America: how a "Christian country" has now become the world's most religiously diverse nation)

Congregational Worship in temples:

Traditional worship in Hindu temples, both in the U.S and India is called 'puja' and is carried out by a priest. He performs the various rituals and chants 'slokas' or hymns from the various scriptures. Many people who would like to be a part of the religious experience ISKCON temples have a very different way of conducting pujas or worship attend this. During the puja, the priests (one of the devotees initiated into the temple, regardless of his nationality) perform the rituals. At the same time, the people who congregate sing the 'mantra' or prayer taught by Swami Prabhupada
collectively. The congregational singing of devotional songs is not a common tradition in Hindu temples, normally.

Materials

Mary F. Linda, acting director of Penn State's Palmer of Art has been researching on Hindu temples India and the US. According to her research, most of the Hindu temples in the US are very much like their counterparts in India- but with slight differences, of course. Cultural influences cause these differences. (Pacchioli, David, "American Hindu", Research/ Penn State, Vol 17No. 2, June 1996)

Instead of stone, American temples are constructed with brick and stone. Building codes and American climate conditions play a major role in these adaptations, as cited before. According to Linda's research, much of the temple building remains the same. This is probably because these temples are constructed by artisans from India who are supervised by a team of architects from India. These architects most likely from families who have practiced temple architecture for generations. Some even make their own bricks.

Iraivan temple is the first hand-carved, all stone temple to be built outside of India. It was borne out of Subramuniyaswami's vision at his 'ashram' on Kauai. The site chosen- already a sacred spot to the Hawaiian people- is located on northernmost of Hawaiian Islands at the foot of an extinct volcano. What is different about the Iraivan temple is that it is all white granite, hand carved temple, which is being shipped stone by stone all the way from India. (www.himalayanacademy.com)

The past few decades have seen a boom in Hindu temple construction, which have adapted their construction to concrete, brick, wood and steel. But all of these put together cannot seem to bring out the splendor of stone temples, some of which are over 1000 years old in India. The project architect is Ganapati Sthapati, based in Chennai, India, whose family has been practicing temple architecture for generations. He has reverted to the old style of building temples. He instructed all his people to use simple old tools such as chisels and hammers and none of the latest rock cutting
technology. Even the quarrying of stones is done by hand. According to him, blasting the quarries would destruct the true nature of granite and not bring out the spiritual quality it would have otherwise add to the temple.

Iraivan temple is being hand made in India and shipped to Hawaii to be assembled. Two spiritual leaders further provided assistance for the project. They provided eleven acres of land outside Bangalore, Karnataka, in South India. Especially for this project, 75 'silpis' or traditional stone carvers were moved along with their families to this land and a village was built for them. This is again unique since such a facility is one of a kind in India with its own Internet access and retirement program.

The land for the project carving is eighteen kilometers outside Bangalore. It was a land plague-ridden with cobras and speckled with raw blocks of granite when the project began. Now the brilliantly carved stones -pillars, posts or idols of the deities – adorn the site. Free housing has been provided to the workers. The carving works begins at 7:30 am and with hour's lunch break goes on till 6:30 p.m.

Figure 27: Quarrying of stones
Source: www.himalayanacademy.com

Figure 28: Chiseling of stones by hand
Since every detailing, rock cutting, carving is done by hand; the work is very laborious and time consuming. It requires great skill and precision to get a job finished. The main idea of doing by hand was to preserve the ancient craft of rock sculpting. The resident artisan is Chidambaram Pillai who is assisted by two more artisans directly under him. Under the directions of Ganapati Sthapati, they supervise a group of ten ornamental sculptors, 41 stone carvers, 4 blacksmiths and 17 helpers. For a 10-ton granite block to be sculpted into an ornamental lion pillar by two men, it takes 865 days. A full month is required to carve small decorative tridents, which form a part of the temple railing. The blacksmiths sharpen 3,500 chisels everyday.

**Rare Architectural elements in the temple:**

- The musical pillars of Iraivan temple are not very common in every temple. The only other temple, built by Ganapati Sthapati, which has something like this is in New Delhi. The musical pillars each are single black stones 5 feet wide and 13 feet tall. Each of the pillars has been carefully carved out into 16 thin rods, which upon being struck by a mallet, resonate and each create a different musical note. Creating something like this is obviously a challenge to any sculptor skills.

- Another rare artifact is the stone chain and bell at the entry gate. Although it looks nothing out of the ordinary, it is actually a result of carving a single stone. The chain links, the bell (82 inch in diameter) is carved out of one stone. It has been hung from a ceiling- which will have a message of universal brotherhood- “One God, One World” in hundred languages. There are 8 lion pillars that each have a ball carved in them. Pilgrims can reach into reach into the mouth to twist and turn the ball.

- Scriptures prescribe sandalwood doors leading to the main sanctuary. But since this caused a lot of theft, temples had to be built without them. But Iraivan temple will be traditional all the way. It will have very intricately carved sandalwood doors made from the best heartwood.

(www.himalayanacademy.com)

As mentioned in the previous chapter, the shastras prohibit re-use of materials. Few of the temples here, go a step further and re-use the materials in a different way. The temples are basically
housed in old structures. There is a re-use of structure thereby re-using the older materials. For example: As mentioned previously, Hindu temples have been found in a warehouse in Queens, a YMCA in New Jersey and a former Methodist Church in Minneapolis.

Color is used in the temples built here. But in the cases that have been researched in this thesis, the use of color is very subtle. The temples are either blended in the neighborhood or they are usually white in the more traditional temples.
Part D: Conclusion

Introduction

With the neck breaking speed of globalization, the world is becoming a very small place. Communication is just a phone call or an email away. We are learning more and more about other cultures. We cannot choose to remain in our own worlds and ignore the rest. Times are changing with people’s changing attitudes towards change itself. With the increasing political and trade relations between the United States and India, it becomes imperative that there be a cultural relationship that is developed between the two countries. As demonstrated earlier, Indian culture is still an unfamiliar culture. Temples are viewed with suspicion. Both these subjects – culture and temples- can be used themselves to work on clearing these misconceptions. Hindu temples speak for Hindu culture in a different country. So Hindu temples can be utilized in a way perceivable to Indians, non-Indians and Indians born in the United States.

Ames, a university town, is home for a huge number of students in different fields. Among these students, Indians make up a fairly large number. Where there is such a close interaction in a small place like this, everyone learns about other cultures. If not learn, at least there arises the curiosity about the ‘other’ culture. Different communities from India come together in this small town of Ames and add to the mix of culture. The Indian Student Association, Sankalp, Sitar are three Indian Student organizations. The activities of these student organizations vary from picking up new Indian students from Des Moines, helping them to find a place to stay, arranging get together, celebrating festivals such as Diwali, holding food festivals etc. During these occasions, images of India, Indian artifacts are displayed for visitors. There are a lot of students who are interested in learning Indian languages, culture, art and architecture. Exchange programs between ISU and Indian universities facilitate those who’d like to travel to India. Indians in Ames need a place to congregate catering to mostly younger generation. The Indian community in Ames is a diverse mix- Hindus, Muslims, Sikhs, Christians etc.
Proposal

To go to the nearest Hindu temple, Indians in Ames have to travel to Minneapolis. By Fall 2002, that might change with a new Hindu temple near Des Moines. Iowa is also a place, which has the oldest Muslim community in the United States. Muslims in general, congregate in someone’s house for their prayers and meetings. With such a wide range of cultural mix, Ames becomes a place that facilitates multicultural contact. This especially true for those people, Indians included, who are in a new place where one can find many people going through ‘culture shock’ and rightfully, so. In the case of any person, he/she tries to find something close to home that reduces the feeling of being ‘out of place’. With the ‘resident’ population of international students, Ames becomes a potential site for an Indian Cultural Center with a place of worship in it.

The reason why the emphasis is on a cultural center and not a temple is because of the idea that this thesis worked towards – secularism through architecture. Where different people come in contact with an unfamiliar culture, there will be different kinds of reactions stemming from culture shock. To be able to bring different religions below one roof would be something unique. A sacred structure that is a temple, mosque, church is something that is rare and does not exist even in India. The temples that bring about this spirit of secularism are some of the temple in the United States. The structure would definitely be Indian in its architecture. The idea would be to foster secularism and dispel fears or concerns about an unfamiliar culture and also a place for Indians to re–acquaint themselves with their own culture.

The following program could be a start towards finding a border that is ambiguous about sacrality and secularism:

Gathering space: A common gathering space, which could lead to the temple, mosque, and church, could act as the central focus of this structure. Symbolically, this space acts as the element that brings people together.
Stage: The gathering space could serve as a place for festivities organized by the student organizations. To encourage more cultural shows and programs, the hall with a stage makes it more appropriate. This would help to organize cultural programs or even when lectures need to be delivered to a capacity crowd. Traditionally, some of the old temples in India do have halls where dance performances took place during festivals or other occasions, which celebrated the rich culture of the town.

Classes for languages and prayers: Most of the Indian families are eager that their children stay connected with their roots. Informal classrooms could be used to facilitate classes that teach Indian languages and the holy prayers not only for children but also for anyone who would be interested.

Center for Exchange Program: This sacred structure could also be used as a resource for those students who’d like to be involved in Indian studies and cannot travel to India. Indian universities can get in touch easily with such a place to facilitate exchange programs with numerous universities in the United States. Therefore, a part of the structure could be allocated to education at university level.

For festive occasions, food is prepared on a grand scale. To make this an authentic affair and also for regular visitors, it is appropriate that the structure houses a kitchen abiding by all health regulations. If the temple activities are regulated in such a way that at specific times after the prayer is over, food could be distributed to the congregation, then the kitchen could be utilized appropriately. When the ISA decides to hold some of its social gatherings, food could be cooked here in the kitchen. Every year, in spring, Sitar holds its food fair called Ports of Call. This is an elaborate cooking extravaganza by the students. The students could use the kitchen and serve the food in the gathering space to the visitors.
Visitors Center: India being a culture that is made up of numerous cultures and complicated to understand, this 'temple' could be a window to many visitors who would like to understand it better. By arranging visitors, appropriate tours could be given in the temple. To make this more effective, a display room with antiques and artifacts of India along with exhibitions of clothes, jewellery, and architecture from different states of India can be incorporated.

Library: To increase the interaction between the temple and international students, the temple and the university, the temple and the Indian children born in Iowa, a library is essential. The library would serve as a wealth of knowledge to those who would like to learn about India.

Restaurant: To increase the interaction between the cultural center and people in Ames, food is a good incentive! A restaurant with a wide variety of cuisines from India could facilitate the process of familiarizing the unfamiliar to interested people. This would also ensure continuous and proper use of the kitchen.

Architecture and construction of the temple: This building should be able to appeal not only to Indians but it should be able to welcome people of all races. It should have its Indian architectural features but at the same time not repel the other nationalities. The trick is to blend and to infuse a nature of multi-ethnicity in it. The temple in the US does it by having an emblem of many religions in the gathering space. A similar approach could be taken in this structure. The construction of this structure should be done keeping in mind Iowa's harsh winter conditions.

Conclusion

The building should be a welcoming building to all people- not just Indians. The building is based on a simple age-old concept of Hinduism- the Vastu Shastra applied in temples. (Cox, Kathleen. Karn, Allison Eden., Vastu living : creating a home for the soul ) Since planning a structure with such a modern diverse nature to it, it is difficult to give it a pure touch.
But the concept could be based on a tradition that has been happening since temple building began. But just like how it has been demonstrated earlier, traditional ways have slowly changed and new modern ideas have been incorporated into temple building. Apart from that some of the temple building is happening in a completely different place with different culture but the temple building itself is being constructed with age-old techniques to give it a very authentic touch.

The structure should be able to maintain the touch of the original temple building and also the building to be responsive to a different place with different culture. The fusion between the two is one of delicate balance. The outcome of this fusion should be traditional in concept and at the same time responsive to the present time and surroundings. Ultimately, architecture in a different place should be able to bring about secularism.

The planning of a Hindu temple is always done with a central focus to one main entity- the garbhagriha, since it houses the main deity. Everything else in the temple revolves around the garbhagriha. The subordinate sanctums are built in conjunction to the main sanctum. The garbhagriha brings together all the worshippers. (Michell, George, *The Hindu temple: an introduction to its meaning and forms*)

Traditional housing also follows the same temple-planning concept. The courtyard form of housing where the house is built around a house is the traditional way of building independent housing. In the middle of the courtyard is placed the sacred plant ‘tulsi’ which is worshipped with the reverence that a deity in a temple would be worshipped.

Ancient Indian towns were also designed with the temple being the center of the town- or at least the strategic center. The activities radiated from the temple. It helped to set up the town, settle a lot of people since jobs were assigned due to the temples activities. The ‘temple’ in Ames, is more of an Indian Cultural Center since the temple’s activities stretch beyond a normal temple’s activities. It
has to do with bringing together people of different cultures together and not just Indians. The temple could follow the idea of the strategic central focus. The gathering space could very well be physically in the center and symbolically work as a central space where everyone comes together. The various other activities just simply generate from it.

In my opinion, this proposed structure works very much towards a secular architecture. It has the essence of tradition- following the age old concept of Vastu Shastra where the main importance is given to the Garbhagriha. This is the reason why people go to a temple. It is the 'power house' of the temple. It is where the deity resides. But in response to the change in time and place, the garbhagriha's place is taken up by the gathering space.

Although, the worship area is the 'garbhagriha' and is the 'temple', I would like the focus to shift to the gathering space. The direction, which I would like this research to go, is secularism through architecture. The gathering space will act as a place, which changes its function according to the time. It may be a place for worship. It may act as a place for social gatherings and other functions. It may be used as a showcase for Indian culture during social functions.

Figure 29: Original Mandala for shrine

Source: Pothorn, Herbert, A guide to Architectural Styles
The simplest prescribed mandala for a shrine is the figure above— with a garbhagriha and an ambulatory passage around it. The focus is on the garbhagriha and less significance is given to the gathering space.

The 'temple' for the new age and new place is one with a mandala prescribed below with shift in focus to the gathering space and less importance to the garbhagriha.

Figure 30: Change to mandala for a multicultural center

Temple cities originated because the temples by themselves are garbhagrihas. They were the reasons why people came together. People from different ranks in social order came together and worked for the temple. Activities sprang up around the temple. People settled close to the temple. Temple architecture glorified a town. Temple cities are still a major study for architecture students in India and other places too. (Pothorn, Herbert, A guide to Architectural Styles)

The plan below is the plan of the Kandariya Mahadev temple, which shows the

- Entrance from a small porch, into a small vestibule leading to ambulatory passage around the garbhagriha
- Progression from light to dark, profane to the sacred
The change in the plan below indicates the following:

- Entrance from a porch to a gathering space that leads to the garbhagriha
- Progression from the profane to the sacred and secular
- Other activities included in the mandala

Figure 31: Proposed plan for the multicultural center with emphasis shifted from Garbhagriha
The concepts for the multicultural center are basically using of old concepts tailored with new ideas into a new situation, time and need. The idea evolves similarly like the old temples in India. The evolution began with a simple temple in Sanchi to temples like Kandariya Mahadev and ultimately temple cities like Meenakshi temple, Madurai.

These evolved simply because of the needs that people faced. With changing times and change in ruling dynasties, the needs were incorporated and different functions were added to the temple maintaining the traditional concepts.

Temple cities were basically built by very rich ruling dynasties. These temples would incorporate more functions into it to make it more lively as it deemed fit for a temple. For example: When the need for a place for celebration of dance and crafts was needed, the hall of thousand columns was added at the Meenakshi Temple, Madurai. (Stierlin, Henri, Hindu India)

A similar approach is taken in the multicultural center. While maintaining its traditions conceptually, new ideas are added and changed in response to the new place and its needs. With these changes, hopefully, it communicates with the new place and also becomes part of it. The main change is the shift of the central location of the garbhagriha that has always been such an important feature of temples.
Temple City of Madurai,

Meenakshi Temple

Source: Stierlin, Henri, Hindu India

A. The main temple
B. Subordinate Temple
C. The water tank
D. South Gopuram
E. Hall of thousand pillars

Proposed multicultural center:

1. Gathering spaces
2. Stage area
3. Garbhagriha
4. Educational areas
5. Library
6. Visitors' Center
7. Restaurant
8. Kitchen
The gathering space is, in my opinion, a temple in itself. I would like to think of the other activities in the program as emanating from the gathering space. This follows the same pattern of origination of temple cities. The other activities take place to keep up the spirit and essence of the gathering space.

In response to the social situation in Ames, this structure will hopefully make its signature in the architecture in Ames. It will be able to bring together not only Indians from different parts of the country but the large international community in Ames.
References


Brown, Percy. *Indian Architecture (Buddhist and Hindu Periods)* (Mumbai: Taraporevala Sons & Co.Private Ltd.. 1976)


Min, Pyong Gap.; Kim, Jung Ha. *Religions in Asian America : building faith communities.* (Walnut Creek, CA : AltaMira Press. 2002)

Rosengarten, Albert. *A handbook of architectural styles.* London. (Chatto and Windus. 1878)


Eck, Diana L. A new religious America: how a "Christian country" has now become the world's most religiously diverse nation. (San Francisco: HarperSanFrancisco. 2001)


White, Anthony G. Religious architecture, Hindu: a selected bibliography ( Monticello, Ill. : Vance Bibliographies. 1984)


Ianni, Francis A. J.. Culture, system, and behavior; the behavioral sciences and education ( Chicago. Science Research Associates. 1967)


Williams, Raymond Brady, Religions of immigrants from India and Pakistan: new threads in the American tapestry (Cambridge [England] ; New York : Cambridge University Press. 1988)


USA Today. 03/22/2001

www.livermoretemple.org

www.vedanta.org

www.cnn.com

www.himalayanacademy.com

http://www.swaminarayan-online.org