

Fatehpur Sikri: A Utopian Approach to Urban Planning and Design

Rajinder S. Jutla

Southwest Missouri State University, USA

The medieval city of Fatehpur Sikri is a world heritage monument in India, visited by many domestic as well as international tourists. Located about 120 miles south of New Delhi, the capital of India, Fatehpur Sikri is a city frozen in time: a place where Mughal architecture, urban planning, and urban design principles can be seen, intact, as they were in the sixteenth century. The city's imperial complex serves as its focal point. Its buildings are linked together through a series of interlocking courtyards set to the cardinal points. The locations of the buildings in the courtyards allow them to be viewed from a number of different vantage points, creating a dynamic visual experience.

Fatehpur Sikri was commissioned in the sixteenth century by the Mughal emperor Akbar to serve as the capital of his empire. Akbar was a revolutionary man of the sixteenth century. He established a new social order based on equality in an attempt to foster unity and social harmony among his subjects. The physical structure of Fatehpur Sikri reflects Akbar's new order. The buildings of Fatehpur Sikri reflect the unique and secular approach of Emperor Akbar, who blended together the varied religious and cultural traditions of his empire. Akbar founded his own religion, *Din-i-ilahi*, which was a synthesis of the existing religions of the era. He made powerful social and political statements through his architecture and urban design. Akbar's utopian concepts may inspire educators, city planners and urban designers to develop a social framework for a new architecture and urban design which may bring stability and social harmony to our society. Urban planning and design based on a social theory responding to our present context may provide successful solutions for tomorrow. This paper has explored Fatehpur Sikri in terms of its social theory and urban tourism issues. The urban tourism issues were investigated through site interviews and inspections.

INTRODUCTION

In the nineteenth century, a number of well-known persons, such as Saint Simon, Charles Fourier, and Robert Owen, were part of the social utopian movement. These men believed that, through education, cooperation, and scientific and technological progress, they could create an ideal society where man could not only live happily, but also could be a productive member of the society. Later on, in the twentieth century, the ideas of these utopians were picked up on and further expanded by architects and planners, including Ebenezer Howard, Le Corbusier, and Frank Lloyd Wright, to shape the urban environment. They believed that old cities were obsolete, and new cities were needed in response to the emerging needs and challenges of industrial society. They were revolutionary in developing new visions for cities by formulating an innovative framework of urban planning and design. These architects and planners believed that there was an urgent need to improve the urban environment by providing people with ample space, light, and fresh air (Fishman, 1994). However, long before their ideas, and even before the utopian movements of the nineteenth century, a Mughal ruler of sixteenth-century India, attempted to create a utopian society by bringing social harmony to the people of his empire. This ruler's unique and revolutionary ideas were crystallized in the city of Fatehpur Sikri.

Fatehpur Sikri is a world heritage monument located about 120 miles south of New Delhi, the capital of India. The city was commissioned by Akbar, the third Mughal emperor, to serve as the capital of his empire. The Mughals of Central Asia invaded and conquered India early in the sixteenth century. They ruled large areas of the country and established a dynasty which lasted from 1526 to 1857.

Fatehpur Sikri was constructed over a short span of fifteen years early in this period, from 1569 to 1584. The city is surrounded on three sides by walls, which are approximately seven miles in length. The fourth side, to the northwest, is bounded by an artificial lake, now dried. The spatial structure of Fatehpur Sikri was unique and advanced for its time, employing courtyards to locate the buildings. The design of the individual buildings of Fatehpur Sikri is symmetrical, but, in the spatial layout, the rules of symmetry are broken, and buildings are deliberately placed asymmetrically. This is because the architectural monuments of Fatehpur Sikri were designed to be viewed from a number of points in the space, and the asymmetrical placement of buildings in the courtyards results in a very dynamic visual experience as one moves through them (Fig. 1). The city today has become an important tourist destination with an approximate population of fifteen to twenty thousand.

A number of studies (Smith, 1897; Brown, 1962; Hurliman, 1965; Hamby, 1968; Koch, 1991; and Asher, 1992) have been conducted on Fatehpur Sikri, but these have focused on individual architectural monuments, not on the city's spatial layout. Studies by Darvar (1974) and Petruccioli (1988, 1992) are among the few that examine the layout plan of Fatehpur Sikri in terms of building function, basic architectural forms, and history. These studies, however, still fail to examine the spatial layout of Fatehpur Sikri in terms of its social context and in terms of urban tourism.

Urban tourism is important to Fatehpur Sikri; the city attracts many tourists, both domestic and international. Tourism is a significant activity in the city, and its importance is likely to increase in the future. The unique urban landscape of Fatehpur Sikri is not only a result of the weaving together of topography, architecture, streets, urban spaces, and vistas, but is also a result of the social, political, and economic order of the era. Architecturally significant buildings provide a "sense of place," which makes the city memorable (Law 1993, 1996) and marketable as a tourist destination. Haywood (1992, p.17) and Mehrhoff (1999, p.61) suggest that tourism planners and city planners need to become familiar with the multidimensional aspects of



Fig. 1 The design of the individual buildings is symmetrical, but in the spatial layout, the rules of symmetry are broken.

heritage tourism. Heritage cities should be examined both in the context of their physical aspects and in the context of the social and political order of the era.

Researchers such as Kavallins and Pizam (1994), Canesday and Zeiger (1991), Lawson, et al. (1998), Jurowski, et al. (1997), Ryan, et al. (1998), Allen, et al. (1988), and others, have conducted a large number of studies in the areas of tourist perceptions and attitudes. These studies have examined the issues of tourism, recreational development, and tourist destinations in terms of their social, economic, and environmental impact. However, little research has been conducted to examine the problems and issues of Fatehpur Sikri in terms of tourist perceptions and attitudes.

This paper has two objectives. The first is to explore the spatial order of Fatehpur Sikri in terms of its social context. This illustrates why the physical structure of Fatehpur Sikri emerged in its particular fashion, and why the spatial structure of this complex is different from that of other Mughal complexes. The second objective is to identify the current issues and problems of Fatehpur Sikri as related to urban tourism. This is based on site visit investigations through interviews with tourists and guides. Finally, recommendations are made to address the investigated issues and problems. This paper makes an important contribution to the familiarization of urban designers, planners, and architects with an understanding of the Mughal conceptions of spatial organization, aesthetics, and tradition. It is beyond the scope of this paper to examine the entire spatial structure of Fatehpur Sikri. This discussion instead centers on the imperial complex, which serves as the focal point of the city. Hence, "Fatehpur Sikri," as used here, refers solely to the complex. This paper begins by examining the unique spatial structure of Fatehpur Sikri in terms of Akbar's beliefs, attitudes and his policies toward his subjects.

SOCIAL CONTEXT

Fatehpur Sikri is the result of a unique period in history, and it is therefore important to examine it through the social and political context of the era. In the early years of his reign, Akbar, the founder of Fatehpur Sikri, followed Islam, the religion of his forefathers. His father and grandfather had ruled India as foreigners in a foreign land. They showed no tolerance for the native Indian religions of their newly-conquered land, considering themselves superior to India's non-Muslims, and enacted discriminatory and tyrannical laws against them. This continued until Akbar became emperor. In his early reign he too followed the policies of his predecessors and ordered the slaying of 30,000 captured prisoners (Volwahren, 1970, p.9).

Later on, however, Akbar became more open to other religions, and changed his policies. He married Hindu princesses, who were allowed to practice their religion. He came to a realization that there was truth in all religions, and began treating each as a different path leading to the same goal (Srivastava 1964, p.48). He finally broke away from Islam, and formed his own doctrine of *Din-i-ilahi*, which means 'the religion of God.' In his own words:

For an empire ruled by one head it was a bad thing to have the members divided among themselves and with variance with one another.....We ought, therefore to bring them all into one, but in such a fashion that they should be both 'one' and 'all;' with the great advantage of not losing what is good in anyone religion, while gaining whatever better in another. In that way, honor would be rendered to God, peace would be given to people, and security to the empire (Hurlimann, 1965, p.117)

This was Akbar's attempt to unify the people of his empire, who were mainly Hindus and Muslims, continually at odds with each other. His new religion was based on the teachings from many of the Indian religions of the time, including Hinduism, Islam, Jainism, and Zoroastrianism. He abolished the *jiziya*, a tax collected from non-Muslims, and put an end to other forms of discrimination against the non-Muslims of his empire (Srivastava, 1964, p.47; Brand and Lowry, 1985, p.6). Akbar recognized that, to have a stable reign in India, one must have the consensus of all religious groups.

Fatehpur Sikri reflects Akbar's social ideology in its spatial order and architecture. He made powerful social and political statements through architecture and spatial design. The best craftsmen from different parts of India were invited to take part in the building of Fatehpur Sikri. Most of the craftsmen were Hindus who were very experienced in the design, construction, and execution of Hindu temples (Srivastava, 1964, p.184; Nath, 1987, p.179). These craftsmen were given the freedom to use architectural expressions and elements from various religious institutions of India. This was a unique secular approach which blended together the different religious and cultural traditions of Akbar's empire. During Akbar's reign, the diverse religious and ethnic groups coexisted peacefully. Fatehpur Sikri therefore expresses Emperor Akbar's vision of social harmony.

Fatehpur Sikri represents the fusing together of various elements of Indian and Islamic architectural forms to give rise to a new spatial order. Fatehpur Sikri's architecture is a synthesis of Islam and the traditions of India. Its buildings reflect the use of traditional Indian trabeate construction and ornamentation details, but the use of domes and pavilions in the same buildings suggests a clear Islamic influence. The rich ornamentation details are based on traditional Hindu and Jain temple art and architectural forms. Akbar's architecture and spatial conceptions crystallize the theme of his policy of uniting and fusing the diverse elements of India's age-long cultures and traditions (Srivastava, 1964, p.184).

The most memorable building in Fatehpur Sikri is the hall of private audience (Fig. 2). It has been popularly described by various scholars as the place where Akbar met important dignitaries and conducted religious discourses with various scholars. In this building, a spatial

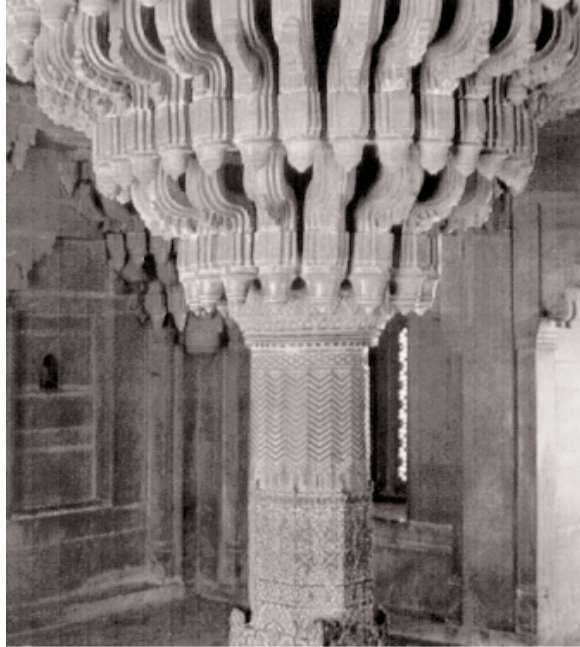


Fig. 2: The monolithic pillar.

hierarchy was created through the construction of an extraordinary monolithic pillar in the form of the universal axis, the *mundi*. The pillar, which is the center of the structure, is encircled by a hanging gallery at the upper level of the interior. The gallery is connected to the top of the pillar by four stone bridges along each diagonal of the hall. This symbolized the connection between the emperor, as the head of the *Din-i-ilahi* religion, and the earth. The axis was conceptualized as the throne where the emperor sat, and the four connecting corridors symbolized his rule in the four directions. The pillar also represented the axis of the empire, and the four connecting bridges indicate the universality of the religion.

During the reign of Emperor Akbar, a new social and political order based on equality emerged, and this is reflected in the development of Fatehpur Sikri. The layout plan of Fatehpur Sikri can be described as open, informal, flexible and democratic. It was generated in the form of an arena where the focus was on creating social and court life through the provision of courtyards. Defense was not a prime concern, and the absence of a wall between the imperial complex and the city where ordinary people lived reflects a new relationship between the emperor and his people. It indicates a ruler living among his people, secure and unafraid. The outer walls of Fatehpur Sikri existed only for the demarcation of the city boundaries. The scale of the wall confirms that they were not constructed for defense.

The spatial layout was developed to accommodate diverse architectural forms and spatial conceptions from the different regions of Akbar's empire. It mirrors the themes of *Din-i-ilahi*, where all are welcomed, irrespective of religion. Fatehpur Sikri reflects Akbar's tolerant attitude toward his subjects. The spatial organization of Fatehpur Sikri can be compared to the spatial layout of the imperial complex at Delhi, which was built at a later date by Emperor Shah Jahan, the grandson of Akbar. Shah Jahan was an orthodox Muslim. He showed tremendous intolerance to the indigenous religions of the land. He demolished many Hindu temples, and

forced his non-Muslim subjects to convert to Islam (Haig and Burn, 1963, p.217). He did not allow his architects freedom of architectural expression and spatial organization. His architecture exhibits a distinct Islamic character. The plan of his imperial complex at Delhi is also rigid, and regimented. The plan is introverted, reflecting a military theme. Defense was a chief concern, and the complex is surrounded by battlemented walls. Unlike Fatehpur Sikri, this plan indicates an emperor insecure and unsure of his people's support. The following section identifies Fatehpur Sikri in terms of its tourism issues, identifying problems as experienced and reported by tourists. It also makes recommendations to address the identified issues.

URBAN TOURISM

During the last ten to fifteen years, the number of domestic and international tourists visiting Fatehpur Sikri has increased significantly. In order to identify current urban tourism issues associated with Fatehpur Sikri, a questionnaire was administered on the site. One hundred and twenty (120) tourists participated in this survey, which was conducted over a period of five days in the summer month of June 2001. The survey was carried out to examine the tourism pattern: the cities from which tourists were coming, the tourists' perception of hotel accommodation and modes of transportation, and their observations of the maintenance of these buildings as well as the quality of the monuments' management. The sample consisted of 75 questionnaires filled out by domestic Indian tourists, and 45 filled out by international tourists. One questionnaire was filled out per family. The responses were recorded and analyzed.

Seventy percent of the tourists came to visit Fatehpur Sikri from Agra, home of the famous world heritage monument, the Taj Mahal. The rest of the tourists came directly from other cities such as Delhi and Jaipur. In response to the question of transportation modes, thirty percent of tourists came by car or taxi, twenty-five percent by train, and forty-five percent by chartered buses or buses run by the tourism department or hotels. Forty percent of the tourists were dissatisfied with the transportation service from the surrounding cities of Agra and Jaipur. They commented that the bus service was poor and unreliable. Tourists believed that Fatehpur Sikri was too isolated and far away from Agra, and they considered it difficult to easily get into and out of it.

Eighty percent of tourists wanted to spend at least a day or two in Fatehpur Sikri. Fifty percent of both local and international tourists reported a lack of suitable accommodation. There is only one single-storey state hotel within the walled city which is always heavily booked during the tourist season. Also, sixty percent of the tourists who stayed in this hotel indicated that it is strenuous to walk to the imperial complex during the hot summer months. Seventy percent of the tourists were visiting Fatehpur Sikri for the first time. Twenty percent were visiting it for the second time, and the remaining percentage had been there on more than two occasions. Sixty percent of the tourists indicated that they would like to visit the monument again some time in the future.

Tourists were asked about the condition of the buildings of Fatehpur Sikri. Seventy percent thought that they were well-maintained. The remaining thirty percent indicated that certain structures on the outskirts of the complex are not in good condition. They include the elephant gate (one of the major entrances used by the royal family), the caravanserai, and the deer tower. These respondents were the only ones who visited these places. Local guides, unless specifically asked, do not show these buildings to tourists, as they currently are physically cut-off from the complex. Some of these structures are of great significance, and some existed before the imperial complex was constructed. Forty percent of tourists also indicated that a major problem is that many entrances to the imperial complex are closed off. This has resulted in

fragmentation, and so tourists are unable to experience the richness of the architecture and spatial sequences. Tourists should be able to follow the historic path to approach the complex instead of having to go all the way around the entire complex in order to enter it. It is important for visitors to experience the city as it was in Akbar's era. A large number of tourists also complained that, at present, a number of gates and staircases within the complex are closed to the public. Again, as a result, the visitor cannot experience the spatial sequences and architecture of the era. The whole complex is divided into small compartments. For example, tourists are taken first to the private harem area through the hall of private audience, and then finally to the hall of public audience. However, for the visitor to properly experience the spaces, it is important to visit the imperial complex through the bazaar and enter through the hall of public audience and from there to the semi private areas and then to exit from the harem area. Information gathered through the guides indicated that many monument gates were closed when an entry fee was imposed.

In response to the question about visiting various historic places of the city, it was discovered that certain sections are not visited by ninety percent of the tourists or even introduced to tourists. The buildings related to Salim Chisti, the well known Sufi saint who blessed Akbar with an heir to the throne form a part of the existing fabric of the urban settlement of Fatehpur Sikri. These buildings are in a very dilapidated condition and require restoration (Fig. 3). Salim Chisti's monastery existed before Akbar decided to build Fatehpur Sikri as his ceremonial city. Also included here is the Rang Mahal, the first royal structure that the emperor built. It was added to the monastery since this was where his empress stayed during her pregnancy.



Fig. 3 Deer tower and caravanserai.



Fig. 4 Rang Mahal: In need of preservation.

The town of Fatehpur Sikri needs upgrading and preservation (Fig. 4). The buildings should be restored according to their original details, and regularly maintained. At present urbanization and population pressure are changing the context of the buildings. Therefore it is important to establish a historic district in order to preserve the visual character of the town. For example, during Akbar's era there was an artificial lake next to caravanserai; this has since dried. There is a need to create a buffer between the historic structures and the present settlement where people live and work. People should be educated about the rich cultural resources of their area so that they can be proud of their community and play an active role in its preservation. Boniface (1995, p.53) suggests that it is necessary to examine the cultural heritage site in its full context. Therefore, a tourism plan for Fatehpur Sikri must be developed in the context of its local economy and regional framework.

There is a need to promote Fatehpur Sikri as a cultural heritage destination. This will help produce revenue for its repair and maintenance. It requires good marketing; at present, there is little promotional material in the form of informative brochures. Information about Fatehpur Sikri should be presented in visual form with good illustrations, so as to benefit domestic and international tourists of varying age groups and educational background. Information should be made available via the Internet, CDs, and videos. In addition to improving marketing, the site itself should also be made more interesting. Special festivals or light shows based on Akbar's period could also be conducted during peak tourist seasons.

CONCLUSION

Fatehpur Sikri can only be understood in the context of the unique social forces of its time. It was created in response to specific needs and issues. It can be seen in light of the utopian tradition of planned communities and cities in which social ideals were addressed along with specific design concepts. The city's unique spatial structure and urban design were created in response to a new social order where the emperor attempted to create harmony among his people and a sense of belonging to their ceremonial city.

Akbar attempted to create a utopian society. He made a profound and powerful social and political statement through architecture. By accepting design elements from Hindu, Buddhist and Islamic architecture, he used a unique secular approach, which blended together the different religious and cultural traditions of his empire. During Akbar's reign, diverse religious and ethnic groups coexisted peacefully. It may be worthwhile to explore whether a similar approach is appropriate to our present-day world of ethnic rivalry and destruction of community.

In our contemporary context, most secular solutions ignore the dimensions of religious and cultural tradition. As a result, these solutions fail to induce in different ethnic groups a sense of pride and belonging to society as a whole. There is a great need today to understand the social dynamics and cultural issues of our diverse population. As a part of the decision-making process, it is also essential to develop public policies and urban design guidelines which would bring together communities and foster better understanding and communication. Architecture and urban design with only aesthetic theories as their criteria contribute little to peaceful coexistence between communities. Akbar was a revolutionary man of the sixteenth century; his ideology may inspire us to develop a new vision of architectural and urban design theory. Unfortunately, Fatehpur Sikri, a testament to Akbar's vision, is falling rapidly into disrepair.

Research shows that Fatehpur Sikri is in need of conservation, and needs to be upgraded and brought back to its past glory to educate urban planners and designers about Akbar's utopian city. There is also an urgent need to develop a comprehensive tourism plan so that a modern tourist can visually experience the complex following the historic movement patterns. The central and state governments must direct their expertise and funds to the preservation of this site which should include local economic development based on available resources. Law (1993) and Gunn (1994) suggest that, in order to create successful economic development and tourism strategies, the upkeep and conservation of urban tourist destinations must be addressed.

The concept of conservation has been neglected in India. It is still not an important component of modern city planning and design schemes. It is interesting to note that in Europe, about a century ago, when the seeds of city planning were sown, Camillo Sitte enunciated the art of city planning based on his study of old towns. He understood the principles of the visual and spatial structure of these buildings, and also the idea of continuity—how present cities should be linked to the past and future. In India, a similar kind of solution can be developed to link the country's architectural and cultural heritage with modern-day city planning and growth. The conservation of large cities and complexes like Fatehpur Sikri is complicated. Conserving and protecting one building may be easy, but conserving a fragile web of architectural monuments, and connecting it to people and activities, is difficult. This is so especially in the face of the several socio-economic and political pressures, both internal and external, to ignore conservation and preservation in the name of modernization and improvement to the quality of life. (Menon, 2004).

Fatehpur Sikri needs to be protected for future generations. It represents the ideology of Emperor Akbar, who tried to bring about social harmony among the people of his empire by

establishing a common platform for worship, which is very similar to the modern practice of interfaith dialogue. Unfortunately Akbar's ideology died with him. The people who later followed Akbar's religion of *Din-i-ilahi* were not ideologists, but opportunists who followed *Din-i-ilahi* for their personal gains. Similarly, in the West, the social ideology of the eighteenth century utopians, Saint Simons, Charles Fourier and Robert Owen could not flourish after their death because the majority of people living in their communities were not committed to this ideology. The main reason for the failing of these utopian communities was universal greed. Fatehpur Sikri will always be a symbol of peace for the diverse people of India. It will not only serve as a popular tourist destination but it will also be a valuable educational resource for urban planners, designers, and art historians for the study of the rich heritage and traditions of the Mughal period.

REFERENCES

- ALLEN, R., LONG, P, PERDUE, R., KIESELBACH, S. (1988). "The impact of tourism development on residents' perceptions of community life" *Journal of Travel Research*, 27. pp. 16-21.
- ASHER, C. (1992). *The New Cambridge History Of India: Architecture of Mughal India*, Cambridge: Cambridge University Press.
- BONIFACE, P (1995). *Managing Quality Cultural Tourism*. London: Routledge.
- BRAND, M AND LOWRY G. (1985). *Akbar's India: Art from Mughal City of Victory*, London: The Asia Society of Galleries.
- BROWN, P. (1962). *Indian Architecture: Islamic Period*. Bombay: D.B.Taraporevala Sons & Co. Ltd.
- CANESDAY, L. and ZEIGER, J (1991). "The social, economic, and environmental costs of tourism to gaming community as perceived by its residents" *Journal of Travel Research* 30. pp. 45-48.
- DARVAR, S. (1974). "Imperial workshops at Fatehpur Sikri: the royal kitchen" *Art and Archaeology Research Report* 2. pp. 28-42.
- FISHMAN, R. (1994). *Urban Utopia in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier*. Cambridge: The MIT Press.
- GUNN, C. (1994). *Tourism Planning*. Washington: Taylor & Francis.
- HAMBY, G. (1968). *Cities of Mughal India*. New York: G.P. Putnam's Sons.
- HAIG, W. and BURNS, S. (1963). *The Cambridge History of India*. Vol. 4. New Delhi: S. Chand & Co.
- HAYWOOD, K. (1992). "Identifying and responding to challenges posed by urban tourism" *Tourism and Recreation Research*. 17. pp 9-23.
- HURLIMANN, M. (1965). *Delhi, Agra, Fatehpur Sikri*. New York: The Viking Press.
- JUROWSKI, C., UYSAL, M., and WILLIAMS D. (1997). "A theoretical analysis of host community residents' reactions to tourism" *Journal of Travel Research*. 36. pp3-11.
- KAVALLINS, I., and PIZAM, A. (1994). "The environmental impact of tourism: whose responsibility is it anyway?" The Case Study of Mykonos. *Journal of Travel Research*. 36. pp. 26-31.
- KOCH, E. (1991). *Mughal Architecture*. Munich: Prestel.
- LAW, C. (1993). *Urban Tourism: Attracting Visitors to Large Cities*. New York: Mansell Publishing.
- LAW, C. (1996). *Tourism in Major Cities*. ed. Christopher Law. London: International Thomson. pp1-22.
- LAWSON, R., WILLIAM, J., YOUNG, T. AND COSSENS J. (1998). "A comparison of residents' attitudes towards tourism in 10 New Zealand destinations" *Tourism Management* 19. pp 247-56.
- MEHRHOFF, A (1999). *Community Design*. Thousand Oaks: Sage Publications.
- MENON, A.G. (2004). *Conservation in India*. Research Abstracts & Texts: Conservation in India. <http://architexturez.net/+subject-listing/000058.shtml>
- NATH, R. (1987). *History of Mughal Architecture: Akbar A.D. 1556-1605*. Delhi: Abhinav Publications.
- PETRUCCIOLI, A. (1988). *Fatehpur Sikri: la citta del sole e delle acque. [Italian edition]*. Roma: Carucci Editore.
- PETRUCCIOLI, A. (1992). *Fatehpur Sikri*. Berlin: Ernst and Sohn.
- RYAN, S., SCOTLAND, A., AND MONTGOMERY D. (1998). "Resident attitudes to tourism development: a comparative study between Rangitikei, New Zealand and Bakwell, United Kingdom" *Progress in Tourism and Hospitality Research*. 4. pp115-130.
- SRIVASTAVA, A. (1964). *Medieval Indian Culture*. Agra: Shiva Lal Agarwala & Co.

SMITH, E. (1897) *The Mughal Architecture of Fatehpur Sikri*. Delhi: Archeological Survey of India, New Imperial Series. Reprinted in 1985 by Caxton Publications, New Delhi.

VOLWAHSEN, A. (1970). *Living Architecture: Islamic Indian*. New York: Grosset & Dunlop.