Diversity In Design: Perspectives from the Non-Western World

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Recently, Prof. Jani won the IDEC Best Book/Media Award for her book "Diversity in Design: Perspectives from the Non-Western World." In this article, Prof. Jani shares information about her book and provides some excerpts from this book. This book was published by Farichild Publications of New York in 2010.

Introduction

Globalization of the business and other activities in the 21st century governs our world. But the concept of "global markets" is not new. Global trading has been in existence since the inception of the Silk route more than 2,000 years ago, when Western travelers first started visiting the non-Western world. In 1418, Prince Henry (1394-1460) of Portugal discovered Africa while on his pioneering voyage to find Asia. Discovery of Cape of Good Hope followed in 1488 by Bartholomew Diaz (c. 1450-1500). Decades later, it opened up the opportunity for Vasco da Gama; who discovered the sea route to India in 1498. These travel adventures may have started as explorations of the non-Western world, but soon turned into the search for markets and commodities and opened up trade possibilities. During this period China was the major exporter of silk; while Romans and Egyptians loved Indian cotton and many other European countries exported Indian spices, gems and ivory. These massive European business ventures later turned in greed and resulted in a hugely inhumane struggle to acquire wealth and gain power over the non-Western world. Africa lost this struggle in the worst possible manner and Africans became victims of slavery, and their land became furtive grounds for European businesses and colonial settlements. By the end of the 19th century, Sub-Saharan Africa was partitioned off by Europeans. Similar fate followed almost all non-Western countries, save Japan and Thailand. Many European countries/peoples imposed their governance in many parts of the non-Western world and established colonies in non-Western world, including Italy, France, Portugal, Belgium, Germany, Netherlands and Britain.

In the 21st century, colonialism is a forgotten reality. But peace and prosperity of the world are still at stake. Technological developments have opened up the "global markets" again, and today the cyber path has won over the sea routes of the past and it connects the East and the West, blurring the regional, national and international boundaries and the time zones. The fast-paced technological, economic and urban growth of Japan, South Korea, Taiwan, Singapore, Thailand, Malaysia and Indonesia is amazing. However, two Asian countries: China and India are emerging as world leaders. We are witnessing an unparalleled change occurring in the world history. (Jani, 2010).

Karan (2004) forecasted that "during the first decade of the 21st century, one billion Asians and Africans, roughly the population of the United States and Europe today, will have reached the threshold of middle-class income. Their entry into the world marketplace will transform nearly every business on earth, creating unprecedented demand for goods and service of all kinds. If the current growth trends continue, by 2010 nearly one billion people in Asia will command as much as $10 trillion in spending power. That is half again as big as the U.S. economy. By 2020, experts anticipate that some 2 billion will have climbed from poverty, creating the world's largest industrial consumer society. And the rise of a modern non-Western world will not just change life in the Asia and Africa; the development will affect every aspect of Western cultures also, including business investment, language, education, and entertainment." (p. 23).

Need for Diverse Perspectives in Design Education

With the population of 2 billion Indian and Chinese people, and rapidly growing population of other Asian, African, and Middle Eastern countries, non-Western countries face a huge challenge of providing housing for their population. The United Nations estimates that by the year 2020, some 60 percent of the people of the non-Western world will live in cities – an influx of about 1.5 billion people. Recognizing this fact, Boyer and Mitgang (1996), in a report titled Building Community: A New Future for Architecture and Practice; noted that "the need for inclusiveness is more urgent than ever. Repeatedly; we were told by practitioners and educators that much of the future of the profession lies beyond U.S. borders, in developing nations, and in non-Western cultures." (p. 96). In a separate report, Guerin and Thompson (2004) proposed that Boyer and Mitgang's definition should be "broadened to include recognition of diverse cultures for whom we design and appreciate the influence of various cultures of design." (p. 5). They also acknowledge that: "interior designers can no longer approach design solutions from an ethno-centric design perspective. Instead, the global implications of created space and environment are upon us. We must examine research that helps us to understand the cultural context in which we are working." They further affirmed that "as communication and technology continue to shrink our world, practitioners must include a global and culturally sensitive perspective in their programming and design solutions." (p. 5).

America takes pride in its diverse cultural milieu and is a leader in promoting "globalization" so it is important that our design students and professionals are exposed to diverse design perspectives and are aware of various cultures and their influence on human behavior and on

Left: Arcade corridor Tomb of Akabar.
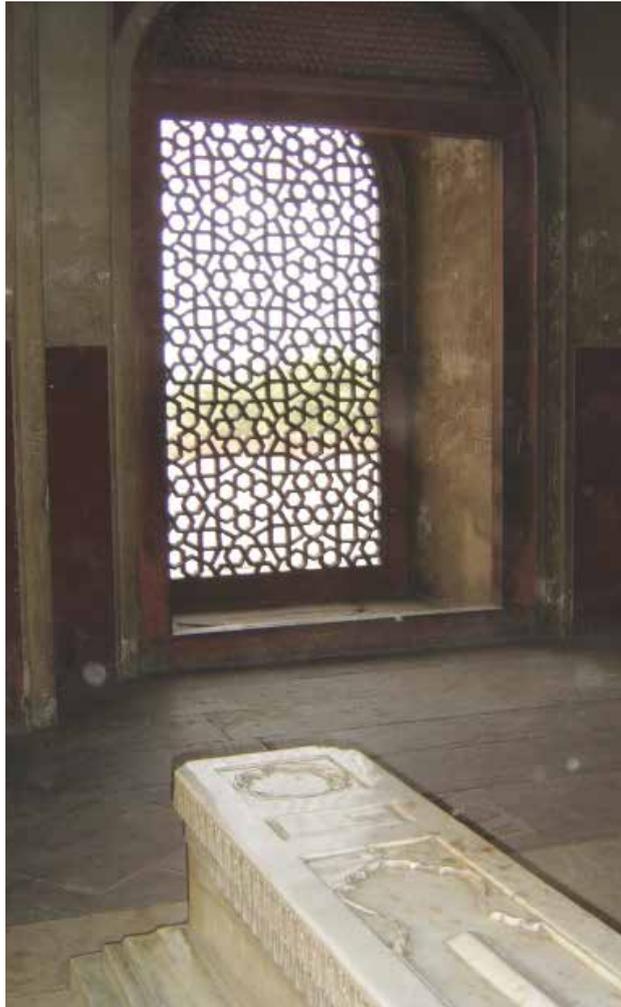
Jali detail 2 in Tomb of Humayun.

Traditional mirror work in Kutchhi home in Gujarat state of India.

our built environments. To embrace challenges of the 21st century, design students and professionals will have to learn to design buildings and interior environments that reflect the ideas and attitudes of the society and cultural environment they live in or represent. This can be achieved only if educators provide diverse cultural perspectives in their classrooms.

Support for Incorporating Global Perspectives in Design Education
This fast-paced 21st century global economic shift occurring in the world today is recognized by the design institutions and accreditation agencies. Taking Boyer, Mitgang and other scholars' suggestions in account, National Architectural Accreditation Board (NAAB) acknowledged the importance of non-Western design traditions' contributions in the development of built environment and updated its professional accreditation criteria. Today, NAAB requires all accredited architectural programs to provide "understanding of parallel and divergent architectural canons and traditions in architecture, and urban design in the non-Western world." (NAAB Criteria 9). In addition, NAAB also requires that all architectural programs provide "understanding of the diverse needs, values, behavioral norms, physical ability, and social and spatial patterns that characterize different cultures and individuals and the implication of

this diversity for the societal roles and responsibilities of architects." (NAAB criteria 13).

To keep up with this changing world, the Council for Interior Design Accreditation (CIDA) also acknowledged the need to "enable graduates to adapt to a changing world" and recognized that "adaptation to change requires that the graduate draw on history and on the experience of many cultures and apply the theories and methods of quantitative and qualitative investigation. A sound curriculum for professional interior design education must provide a balance between the broad cultural aspects of education, on the one hand, and the specialized practical content integral to the profession, on the other." (CIDA Preamble, 2009, p. 2). To ensure that interior design programs include diverse cultural perspectives in their curricula, CIDA recommends that "entry-level interior designers have a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contexts." (CIDA 2009 Professional Standard 2, p. 11). CIDA also requires that "students understand globalization and the implications of conducting the practice of design within a world market, and how design needs may vary for different socio-economic populations" and expects that all interior design programs provide "opportunities for developing knowledge of other cultures." (CIDA Standard 2b, 2c, and 2f p.11).

Emergence of the Idea for the Book
If educators, scholars, practitioners, and accreditation agencies all agree that design should be taught from diverse perspectives that acknowledge the contributions of all world cultures (not only Western European traditions), why then is design still being taught from Western European perspective in the U.S? The answer for this critical question was found during a survey administered in 2006 by this author and her colleague wherein 98 percent of the participants indicated that their institutions do not offer non-Western design perspectives in their curricula due to the lack of expertise in their faculty

Traditional Indian furniture and art work.

Palace door detail.

pool (Jani & Asojo, 2008). The other major reason for the non inclusion of diverse perspectives was lack of educational resources on non-Western traditions. Sixty eight percent of the survey participants indicated the need for a textbook on non-Western Traditions, and 77 percent indicated the need for visual information including slides, presentations, and CD-ROMs on non-Western precedents. (Jani & Asojo, 2008).

To address the aforementioned deficiency, this author proposed a book titled "Diversity in Design: Perspectives from the Non-Western World" as her humble effort to assist fellow educators and professionals so that design can be taught and learned from diverse perspectives. Since the non-Western cultures dominate almost half the world, it is impossible to provide information about each non-Western country. To pay proper respect and attention, and to avoid doing injustice to each country's building traditions, this book focuses only on selected countries of the non-Western world based on: 1) each civilization's contributions in the development of architecture and design, 2) how these countries influence the world today, and 3) how these countries will shape our collective futures of tomorrow.

WHAT IS THE "NON-WESTERN WORLD?"

To understand the design traditions of the non-Western world, it is first important to understand what constitutes "non-Western" world. The non-Western world as we know it today can be defined as the areas of the world where thousands of years ago, various cultures flourished and developed their civilizations based on their own unique belief systems and philosophies. Each of these civilizations also developed a virtual athenaeum of literary, artistic, political, and scientific principles. These differed widely from the Greco-Judaic-Christian traditions of the Western culture. This non-Western world comprises Asia, Africa, and the Middle East. Asia is further subdivided into three zones: East Asia—China, Japan, and Korea; the Indian Subcontinent - India, Pakistan, Sri Lanka, Nepal, Bhutan, and Tibet; and Southeast Asia: Myanmar, Laos, Thailand, Cambodia, Vietnam, Malaysia, Singapore, and Indonesia. (Jani, 2010). Each of these non-
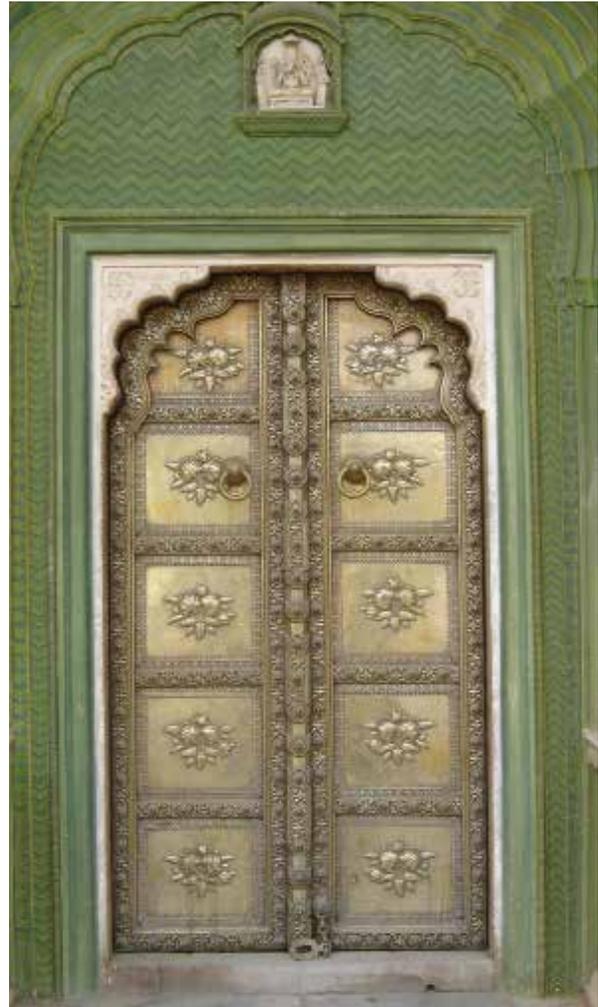
Western regions developed its own distinct values and belief systems that shape its art, architecture, and culture.

The Reasons Behind the Selections of the Non-Western Countries

In the global markets today, two Asian countries: India and China are emerging as major world powers. Together, these countries represent two ancient civilizations and three major religious traditions of the world: Hinduism, Buddhism, and Islam. These two countries are emerging as world powers and therefore need closer review. Given many misunderstandings about Islam and the tension this has created between the West and the Middle East, the significance of a deeper understanding of the cultures and traditions of Egypt, Turkey, Algeria, and the United Arab Emirates needs no further explanation. Today when Islam is blamed for having the intentions of destroying the Western world, many readers would be surprised to know that Greek scientific and philosophical knowledge was both preserved and expanded by Islamic civilization when the West had forgotten about it. After reviewing some of the facts given below, readers will have a better understanding behind the reasons for the selections of the selected non-Western Countries.

Exterior gate Tomb of Akbar.

Asian Countries: India and China

Known for its snow-capped mountains and sacred rivers, saints and spirituality, saffron and spices, silk saris and silver ornaments, colorful festivals and chaotic traffic, carved temples and palaces, and as a country of more than a billion people, India is the largest democratic country in the world. In India, 5,000-year-old social norms, ritual conventions, and artistic traditions comfortably coexist with the most modern achievements of science and technology. Because of its population growth, especially within the middle class (at present, around 300 million and growing 5 percent every year), well-trained English-speaking professionals in the scientific and technical fields, and a sound economic base, India is progressing fast and will play a major role in shaping the future of the 21st century. (Jani, 2010).

Readers may not know that Indus Valley civilization (also known as Harappa civilization) that flourished in India during 330-1300 B.C.E., was very progressive. The Indus Valley people developed metal tools, invented writing on seals, and its weights and measure system became the benchmark for trade. Today we can't think of living without a car, but the first prize for the development of the transportation device goes to the Indus Valley people who started using horses around 100 B.C. This innovation later aided traders, warriors, and civilians alike for centuries. Horses and horse carts were the greatest transportation device until the motor car was invented. Solid wheeled ox and horse carts are found in both Indus and Mesopotamian civilizations.

India is also known for its innovations in astronomy, medicine and many other sciences. How many of you regularly do Yoga today? Yoga originated in India. Practicing Yoga and meditation to improve your mind and body connection is no more a "new age" concept in the West. Similarly; Ayurveda, the holistic medical science

(which utilizes natural herbs) also originated in India, and is gaining recognition in Western medicine today. And while we are discussing medicine, many of the animal lovers among our readers may not know that around 260 B.C.E, King Ashoka of India built hospitals for sick and injured animals, first of its kind in the history of mankind. India is also home of many stupendous architectural monuments, one of them, the Taj Mahal, is considered one of the Seven Wonders of the World. Readers also may not know that cotton cultivation and weaving also had its origin in India, so did dying of textiles. Today Indian words like guru (teacher), pandit (scholar), karma (actions) and many others are used in everyday English conversations.

China's contribution in many fields is noteworthy as well. Rice was cultivated in China as early as 3,000 B.C., and brain surgery may have been in practice in China around the same time too. I am sure many of you love Chinese food. Do you know that noodles date back to 4,000 B.C. China? Jade was used in Chinese objects and ornaments as early as Honghsan and Liangzhu cultures dating back to 10,000 B.C.E. Emperor Fu (2857-2737) of China developed the science of silk production as an art form. China is also credited for devising the plow, which enhanced agricultural techniques developed during that time. To facilitate writing, Chinese people invented rice paper during Han Dynasty (c. 105 B.C.), ink, and movable typeset for printing which later became useful materials and technique to produce paper money. Gunpowder was invented by the Chinese and so were tools like the seismometer and the magnetic compass. For more than 4,000 years, the philosophies and social constructs of a rich and vibrant culture have both inspired and constrained Chinese design. In addition to this long-standing social environment, China's geography and climate have naturally determined the way its people approach design as well. From this balance of inspiration and constraint, with respect to both social and physical

Traditional Indian furniture.

influences, Chinese design has gradually evolved into a unique harmony between cultural ideology and nature. (Diversity in Design: Introduction of China).

The Muslim World and the Middle Eastern Countries
Islam placed a great emphasis on culture and learning. There are many innovations that came from the Muslim world. Lewis (1999), noted that Muslim sailors invented a device known as "triangular lateen sail," which made better and faster use of the wind at the sea than the square sails on European vessels. He further declared that "Muslim geographers had a more accurate and comprehensive view of the layout of the earth" and had better map-making and navigational skills then Europeans at the time. (p. 141). Medicine, astronomy, botany, zoology, and many other sciences can pay tribute to ancient Muslim scholars in these and many other fields. In fact, we should be thankful to Muslim scholars and their Islamic belief of "heavens," which proved to be much more accurate than European belief that the world was flat and the sun moved round the earth. (Lewis, 1999, p. 141). Acupuncture and veterinary surgery too has roots in Muslim medical scholarship.

Through the study of Middle Eastern countries of Egypt, Turkey and UAE, and their building traditions, we may begin to explore how purity and prosperity, the pious and the popular, tradition and technology co-exist in these countries. Egypt occupies a unique location, being on the edge of or associated with more than one region. Located on the North Eastern tip of the continent of Africa, Egypt is often classified as "North African" with some similarities in climate and terrain to other North African countries. Because of its proximity to other major Mediterranean civilizations, such as Greece and Rome, Egypt also shares a general Mediterranean culture, due in part to shared geo-climatic factors, historic trade routes, and empire shifts. Finally, Egypt is also considered part of the Middle East region, not only due to location but also to the historical roots of Islam in Egypt that bind most of

the Middle East. These roots include the shared Arabic language and religion, which in turn have landed Egypt within the general culture of the Arab world. (Diversity in Design: Introduction of Egypt).

Turkey is the only Muslim democratic country in this region. Turkey is the first Muslim secular state where political and legal systems are completely separated from the religion. As with many non-Western countries, the cultures and traditions of Turkey go back to the very beginnings of civilization. Turkey's unique location, literally straddling east and west across the Bosporus, a narrow straight that separates Asia from Europe, makes it a place where tradition has always been obliged to blend, or at least to contend, with the new. (Diversity in Design: Introduction of Turkey.) The United Arab Emirates (UAE) is located in mostly deserted land. The country is roughly the shape of an isosceles triangle with one of its two longer sides scooped out by the tides of the Persian Gulf that lap upon its long northwestern border. However, this tiny country has taken long strides architecturally, by combining traditional architecture with technology to create modern marvels in the world today.

Africa
Africa, too, has seen magnificent times in the past and has great potential to prosper once again with its oil, diamonds, and many other natural resources. It is also the place where Egyptian Pharaohs roamed the deserted land and built monumental buildings not only to be used in this lifetime but in the afterlife as well. Between Algeria and Nigeria exists the past, present, and future of Africa: if Algeria represents a majority of Muslim populations, Nigeria represents all of the ethnic groups of Africa and provides unique examples for learning African design precedents. Western cultures have adapted African art, architecture and furniture styles, and many other inventions of the non-Western world in their daily lives. It is a well known fact that Picasso found inspiration in African art and masks.

Given these above mentioned countries' contributions in the development of art, architecture and cultures of the world, the book development team decided to focus on seven non-Western countries—India, China, Turkey, Nigeria, Algeria, the United Arab Emirates (UAE), and Egypt. In this book, each country's art, architecture and cultural traditions are explained in detail. Through various visual and textual information, each chapter describes the influence of the regional geography and religions, cultures and climates, sites and settlements, and empires and environments upon development of each selected non-Western country's architecture and design.

Structure of the Book:
The foundation of this book is rooted in the "cultural diversity;" while the book's structure is built on various components of culture of each country, and how it influences design theories and principles, design generation and development, construction materials and techniques. As a result, each chapter is dedicated to a particular non-Western country's design traditions and begins with a general introduction, or a brief overview of sorts about that country's legacy to familiarize readers with the essential "did you know?" information. Next,

the information about the immediate surroundings of that country; its location, geography, topography and the climate is discussed so that readers can establish a broader knowledge base about the reciprocal relationships these factors have on the makeup of the people, their culture and their built environment. Once this basic understanding is established, the culture and social structure of that country is introduced to inform readers about the people and their ethnic groups, their values and beliefs, religions and rituals, social norms and cultural practices and how it influences development of the built forms and interior environments. This then serves as a platform for understanding the matter and meanings, systems and symbology of various design traditions of that country including vernacular, historic and religious building traditions.

Various case studies serve as the main instrument for the knowledge building. This newly acquired design knowledge can then be expounded through the understanding of design principles, elements and practices incorporated in the space articulation and organization strategies. This leads into the discussion of spatial quality of built environment of this country. Finally, space-defining elements, materials and furnishings are introduced so that each building tradition can be examined in its entirety, in a holistic manner.

A CD-ROM is also included with the book that provides additional visual information to assist the design educators in incorporating diverse perspectives in their teaching.

Focus of the Book: Architecture and Design Traditions of the Non-Western World

Cornell (1959) defined architecture as "practical reality aesthetically organized.' (p.19). These realities and aesthetics relate to function and form and change over time and from culture to culture. Hildebrandt (2002) indicated that "an architectural structure is an expression of cultural principles and deliberate design choices based on current technology and understanding its meanings." Thus, like all human creations, buildings are extensions of people's beliefs and attitudes. These beliefs and attitudes are not just about architecture, but are also about life and living. Malnar and Vodvarka (1992) believe that "buildings reflect decisions based on concepts of ethics and morality: how people should live and work and how those buildings should symbolize their belief." This profundity takes the form of purposeful arrangement, the organization of tactile, hepatic, and visual elements so that a building's message is clear. (p.11).

It is obvious that architects and designers are not only concerned with designing buildings that reflect peoples' functional, economic, aesthetic and structural needs, but also political, cultural and spiritual needs and desires. Hildebrandt (2002) noted that architects incorporate these ideals and views in the design process by "narrowing abstract notions of ideas and symbols or program to compose a unity of form, space, detail, and materials in order to achieve a Vitruvius' dicta of firmness, commodity, and delight." The resultant building form becomes a work of art that reflects the personal, social and political perspective of an individual or a group of people who designed it and also reflects (in larger sense), the values of the individual, (or group) and of the society this individual or the group belongs to. Sometimes these gestures are subtle; sometimes they are obvious. Thus, buildings present a voice, and a value system that stems from particular perspectives and particular points of view. And so, when we examine and study buildings; while it is common to think of them on the one hand as being built by individuals; on the other, they also reflect the ideas and attitudes of the society and cultural milieu that created them.

In their coverage of each country, the authors provide information on each country's cultures, design philosophies, theories, principles, and symbolic meanings evident in its built forms, furnishings, and applied arts. How does the climate and geography of a region affect construction methods? How does a particular religious, philosophical or political belief affect architecture and design? These are the questions the author of each chapter answers in detail through examples of vernacular, religious, and imperial architecture.

Non-Western Cultures and Green Design

In addition to exploring issues discussed above, readers will also uncover centuries-old sustainable strategies evident in and utilized by various cultures. Buildings of the non-Western civilizations were built to appropriate the environment and climatic conditions centuries ago. Taj Mahal and many other Indian and Middle Eastern tombs and palaces utilized water channels and jalis (carved wooden or stone lattice windows or screens) to generate and circulate the cool air in the buildings. The use of local materials, recycling, efficient use of space, and many others strategies were in use thousands of years ago in non-Western building planning, design and construction and are practiced even today in many non-Western countries without the "LEED" seals. The Middle Eastern wind towers, *sansabils*, *mushrabias* (carved wooden lattice screens), and shallow pools in the courtyards are all part of ancient green design strategies to control the microclimate of a dwelling. Learning about these strategies will inform a globally green future. Western cultures have borrowed many elements likes these from their neighbors in the Middle East and North Africa.

Non-Western Art and Furniture

This book also provides information about the selected art and furniture traditions of each country. Meaning behind selections of colors and construction techniques, motifs and materials are further discussed to show how socio-cultural and religious traditions influence the development of the art and furniture traditions in each country. Each chapter also provides information about how meaningful symbology is embedded in art and furniture design traditions. This dispels the myth that all non-Western architectural decoration is just ornamentation and has no higher purpose.

HOW TRADITIONAL WAYS OF LIFE INFLUENCE TOMORROW'S DESIGN

It is important to remember that civilizations are based on the common philosophic, religious, political, and economic ideology of a large group of people, and they spread these common belief systems over a large area and connect diverse groups of people together. Civilizations

Adalaj step well second floor detail.

can survive only if the majority of the people preserve these common belief systems over a long period of time. Since we live in a constantly changing world where societal, cultural and technological conditions continually evolve and change, we have to make changes in our way of thinking and doing things. However, ancient cultural, social, religious, art and architectural traditions provide us food for thought: how can we learn from the past to do things better?

Review of the traditional architecture can teach us how we can build our dwellings that can last for centuries like our ancient buildings. Conducting research on the traditional ways of design and construction can provide solutions for tomorrow. We can learn how we can find ways to save energy. How can we reduce the cost of building our new edifices? What measures we need to take to avoid waste? There are many green design strategies discussed in this book that are still valid today. We just have to learn to review these strategies and incorporate it in our future buildings. We also need to be open about understanding non-Western design philosophies without judging thier validity. Feng Shui of China and Vaastu Shashtra of India are two prime examples of misunderstandings that most Western and some non-Western designers have. Rather than ignoring these traditional building design and construction treaties, we need to understand the true scientific reasons and meaning behind these treaties. It can reveal how energy fields, movement of the sun, open spaces, vegetation, and other design and construction principles described in these treaties can help us in developing future sustainable and green design solutions.

Thus the information provided in this book is envisioned as a vital guide for developing a "world view" within its various user groups. The knowledge gained through the review of this book can be utilized in the development of culturally appropriate yet sustainable design responses for not just non-Western projects, but here at home, for our local,

regional and national projects as well. As Ralph Waldo Emerson said, "let us think of education as the means of developing our greatest abilities, because in each of us; there is a private hope and dream, which fulfilled, can be translated into benefit for everyone and greater strength for our nation." Collectively, we can educate one another for a better tomorrow for all of us.

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