

Determining an Appropriate Architectural Style for Designing Cultural Buildings in Ghana.

Balaara Allan Stephen Callistus Tengan
Department of Building Technology, Bolgatanga Polytechnic
Box 767, Bolgatanga, U/E/R, Ghana
+233(0)245146981, 36asbv@gmail.com, callyclarke@gmail.com

Abstract

There is no established general pattern, philosophy or style for designing national cultural buildings in Ghana. Existing cultural buildings are often an expression of the designers own 'DNA' or his/ her most preferred architectural style and neglecting aspects of other archetypes which collectively constitute the Architecture and heritage of the Ghanaian people. This paper sought to determine an ideal Architectural style for the design of National cultural buildings in Ghana. The mixed research approach of both qualitative and quantitative methods was adopted. The qualitative method utilized historical reviews to establish the various architectural styles or types in Ghana to include Vernacular, Islamic, Western and Eclectic Architectures. Purposive and random sampling techniques were employed to obtain data for the quantitative study. Frequency and percentages was adopted for the description of this study. The study showed a strong approval rating for eclectic architecture as the ideal architectural philosophy for the design of cultural buildings in Ghana. The study also revealed that the high approval rating for eclectic architecture was because it represented more the diversity in Ghanaian Architecture.

INTRODUCTION

There is no established general pattern, philosophy or style for designing national cultural buildings in Ghana. National Cultural buildings are centers of the collective Ghanaian traditional heritage. These buildings are often an expression of the designers own 'DNA' or his/ her most preferred architectural style neglecting aspects of other archetypes which collectively constitute the Architecture of Ghana (Larbi, 2007). It thus forms the basis for this research, which seeks to test the suitability or appropriateness of a Ghanaian archetype for the design of national heritage buildings.

Architectural philosophies/styles define the pattern of thought of Architects, Artist and actors of the built environment and are necessitated mainly by a desire to break from the norm such as the Avard garde movement or a return to an earlier style or epoch and a change in technology through the discovery of new materials (Gerald,1990). The Ghanaian architectural landscape like its counterparts the world over has also witnessed varied architectural developments through influences from within and outside of the country. This explains the diversity in Ghanaian history and offers an opportunity to study a history that celebrates the sociological, economical, environmental and infrastructure livelihood of the Ghanaian (Elleh, 1996). Elleh (1996) regards African Architecture and for that matter Ghanaian Architecture as a triple heritage of indigenous/ vernacular Architecture, Islamic and Western Architectures. The main objective of this research is to establish an ideal design approach for the design of Cultural buildings in Ghana based on the dominant Architectural styles.

GHANAIAN ARCHITECTURE

Ghanaian architecture is predominantly traditional before encounters with the Arabians and later Europeans through trade and colonization. The European influence was limited to coastal towns and the middle belts. Interactions with the Arabians through the Trans- Sahara trade explain the predominance of Islamic architecture in northern Ghana (*Schreckenbach, 1981*). Through migration the Islamic population of the north gradually transposed Islamic architecture to their new settlements in some areas down south especially the 'Zongo' communities (Figure 1.0).

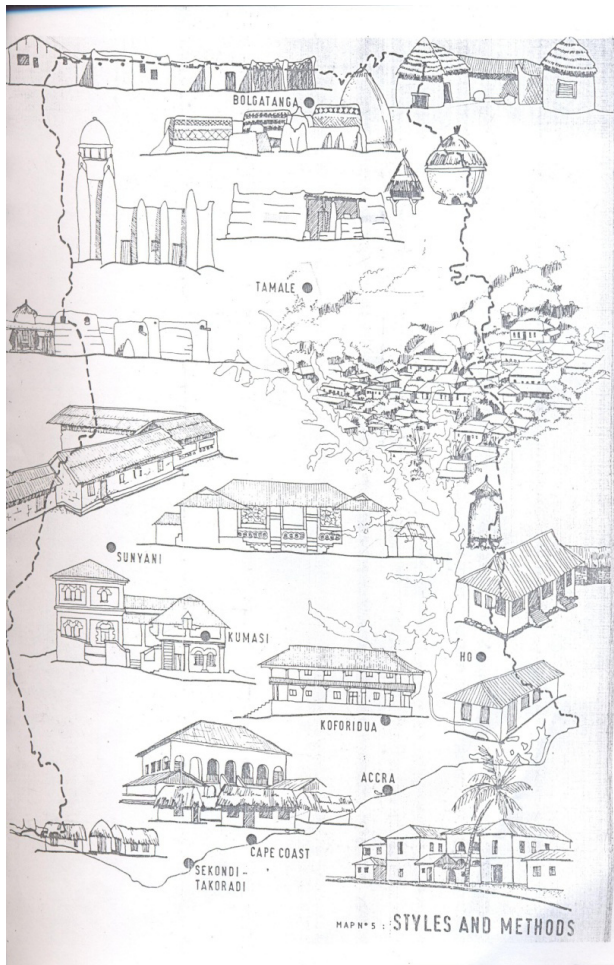


Figure 1.0, *Distribution of styles and methods over Ghana (Schreckenbach, 1981).*

Traditional Ghanaian Architecture

Traditional Ghanaian architecture is into three zones namely, the northern, middle belts and southern zones. In the northern zone, traditional building methods in mud are still followed throughout the region, mainly in the rural areas. In the North-eastern half, the buildings are circular cells of fractal developments around an inner courtyard. In the north-western area however, rectangular structures of interconnected spaces are built with flat mud roofs. In the Lobi area these roofs are supported by post, beams and rafters (Schreckenbach, 1981).

The middle zone consist of wattle and daub methods constructed with gables and supported by timber poles of bamboo and covered with woven thatch of palm leaves (Swithenbank,1969).

In the southern Zone the traditional building method are also wattle and daub construction, as well as Atakpame method or walls of stones, sun-dried bricks from laterite soils and burnt bricks. Traditional roofing is thatch with isolated cases of flat roofs or roof from split bamboo. The house plan is rectangular (Schreckenbach, 1981).

Western Ghanaian Architecture

The Portuguese were the first Europeans to land in the Gold Coast and immediately realised the economic potential of the area. This motivated them to settle and built an imposing Castle; the Elmina Castle in 1482 as shown in Figure 1.1 (Hyland, 1979). The influence of European style buildings was predominant in Ahanta and Fante villages which had rectangular cottages, thick mud walls or sundried mud brick walls, steeped pitched, thick thatched roofs and moulded or white-painted architraves to doors and windows along the coast. There was also single and two storey houses especially in Elmina similar to the structure of forts and castles with flat roofs paved in tarras. These flat roofs have been replaced by low pitched roofs of corrugated aluminium sheets or flat asbestos tiles (Schreckenbach, 1981)



Figure 1.1, *the first fort built on the West African coast (Elmina Castle) (Encarta Encyclopedia, Liba Taylor)*



Figure 1.2, *the studio block of the Department of Architecture-KNUST- Ghana, an international style Architecture by Prof. Owusu Addo.*

Other European influence occurred in the Akwapim area stimulated by the Basel mission. The buildings were constructed of stone and roofed with shingles. These influences still exist in places like Akropong, Lartey and Mampong (Schreckenbach, 1981).

From independence times which coincided with the emergence of the International style, the first generation of Ghanaian Architects who were sent to study in Europe adopted and replicated the International style buildings in Ghana and consequently eclectic style architecture (Larbi, 2007). Figure 1.2 shows the Studio block of the Department of Architecture, Knust designed by Architect Owusu Addo, a European trained Ghanaian Architect.

Islamic Ghanaian Architecture

West Africa which includes Ghana was dominated by Islamic influence from the eighth and ninth century onwards and by the nineteenth century large areas was Islamized'. Which pre-suggest that some parts of Ghana were touched by the influence of Islam (Prussin, 1969).

The spread of clay Mosque buildings to the south and east of the Niger belt occurred through trading and missionary activities of black Mande groups known as Dyula, who, from the 14th century, established trade routes from Djenne through the north to the Akan goldfield and the Wangarawa, who were the first to introduce Islam to the Hausa states in the fourteenth and fifteenth centuries (Leary, 1978). This suggest that the black Mande groups of traders and missionaries passed through the north from Djenne, and their influence could clearly be seen in the established similarity between the Great Djenne mosque which is Islamic in architectural style and the Larabanga mosque of northern Ghana.

The foundation of the Friday Mosque is associated with a Dyula cleric during the reign of one of the Gonja kings, Jakpa (1622 – 1666)'. That monument is the Larabanga mosque which is the foundation upon which Islamic architecture got on to the other parts of the country as shown Figures 1.3, 1.4. The Wa-Naa's palace and the Nakore Mosque have similar architecture as the Larabanga mosque (Al-hassan, 1975).



Figure 1.3, *Entrance View of Larabanga Mosque (Ghana Museums and monuments board, 2004).*



Figure 1.4, *Frontal view of Wa Naa's Palace.*

Eclecticism as a Design Philosophy/style

The term “eclectic” as applied to design indicates the use or combination of a variety of styles from different eras or perhaps origins. It describes the combination in a single work of elements from different historical styles, chiefly in architecture and, by implication, in the fine and decorative arts (Eaton, 1975). It was first recorded to have been practiced by a group of ancient Greek and Roman philosophers who attached themselves to no real system, but selected from existing philosophical beliefs and doctrines that seemed most reasonable to them. Out of this collected material they constructed their new system of philosophy (Henry & Robert, 2001)).

The term is sometimes also loosely applied to the general stylistic variety of nineteenth century architecture after Neo-classicism in 1820, although the revivals of styles in that period have, since the 1970s, generally been referred to as aspects of historicism. The lack of guidelines on past styles created a general sense of architectural freedom, which enabled architects to toy with fanciful ideas outside of strict historical interpretation to create completely unique buildings. Often this involved re-interpreting a historical style and adding a completely new spin. As a result, many Eclectic buildings have become important landmarks (Eaton, 1975).

The design method of Eclecticism honed during the Victorian Era is in fact a natural reflection of modernism or post modernism (Mignot, 1994). The nineteenth and twentieth centuries in the West were years of profound technological advances, exploration and discovery culminating in globalism, prosperity, and literacy this enhanced the desire to have integrated or eclectic designs (Jackson, 2010).

RESEARCH METHODOLOGY

The research design is generally categorized as mixed research method which combines both qualitative and quantitative methods. The qualitative method utilized historical reviews to establish the various Architectural styles on the Ghanaian landscape. The quantitative method through administering questionnaires was to determine in percentage terms the frequencies for Vernacular, Western, Islamic or eclectic Architecture.

In the quantitative analysis, a total of 80 respondents were obtained. It consisted of 30 Chiefs out of the 50 members of The National House of Chiefs. This was necessary because the Chieftaincy Institution is the symbol of Ghanaian traditional authority and hence Ghanaian culture and therefore their responses would form a good basis for this research. The target was to obtain responses from at least 50% of the membership of the House and that target was exceeded by 10%. Opinions were also sought randomly from 25 administrative staff of various cultural buildings in Ghana as well as 25 others respondents from the general public representing Architects and other professionals of the built environment.

In this study, a deductive process in research strategy was used. Testing to ascertain the suitability of an architectural style for the design of cultural buildings falls into a deductive approach.

FINDINGS & ANALYSIS

This section documents the results of the structured interviews conducted during the study. The first part tabulates responses, when stakeholders were asked to answer by selecting one alternative of; Vernacular, Islamic, Western, or Eclectic design methods.

Table 1.0, Summary of Responses on the most suitable design method for the Cultural buildings in Ghana.

DESIGN METHOD	CHIEFS	STAFF OF SELECTED CULTURAL BUILDINGS IN GHANA	ARCHITECTS AND ASSOCIATE PROFESSIONALS	TOTAL
VERNACULAR	10	3	5	18
ISLAMIC	2	0	0	2
WESTERN	6	7	10	23
ECLECTIC	12	15	10	37
TOTAL	30	25	25	80

Following are graphical analysis of each category of respondents culminating in an overall analysis.

Analysis of responses from Chiefs

The graph below shows the results obtained from 30 Chiefs constituting the sample size. It indicates that as many as 40% of Chiefs are in favour of the Eclectic design methodology. The reason being in order not to emphasis the Architecture of one region over others, it is ideal to borrow from all. It is followed strongly by Vernacular Architecture as the design methodology with 33%. The reasons advanced here is that, many still believed that in order to preserve our culture, Traditional Architecture should be the dominant design methodology. Those in favour of Western Architecture constituted 20% and Islamic Architecture recorded the lowest of 7%.

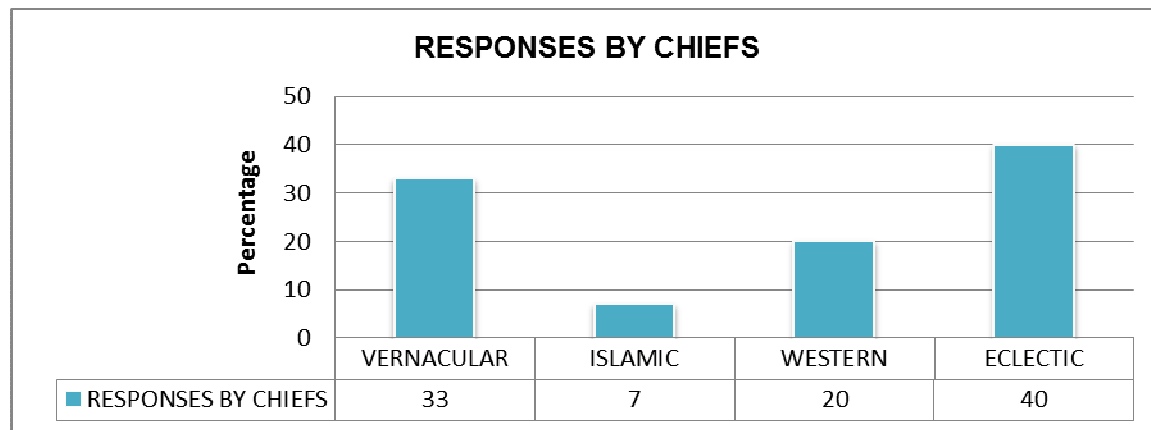


Figure 1.5, *Response by Chiefs in relations to the category of design approaches.*

Analysis of responses from managers & staff of Cultural buildings in Ghana

The graph below shows the results obtained from 25 staff members of the National House of Chiefs and the various Regional and Traditional Councils and other selected Cultural buildings in Ghana. It indicates that as many as 60% of staff members are in favour of the Eclectic design methodology. The reason also being in order not to emphasize the Architecture of one region over others, it is ideal to borrow from some. It is followed strongly by Western Architecture as the design methodology with 28%. The reasons advanced here is that, many are enthused with the use of glass on facades as it signified modernity. Those in favour of Vernacular Architecture constituted 12% and Islamic Architecture recorded 0%.

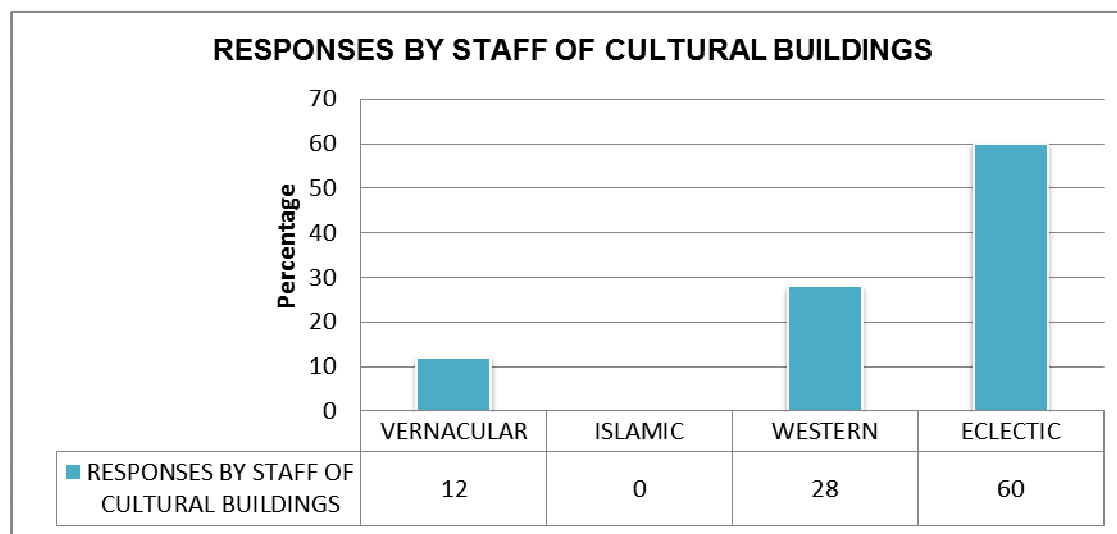


Figure 1.6, *Response by staff of the Cultural buildings, in relations to the category of design approaches.*

Analysis of responses from Architects and Associate Professionals

The graph below shows the results obtained randomly from 25 Architects and associate professionals constituting the sample size. It indicates that as many as 40% of these professionals are in favour of both Eclectic and Western Architecture design methodology. Those in favour of Eclectic also emphasized that the Architecture of any cultural building should be balanced and those in favour of Western Architecture are enthused with the use of glass on facades as it signified modernity. Those in favor of Vernacular Architecture constituted 20% and Islamic Architecture recorded 0% response.

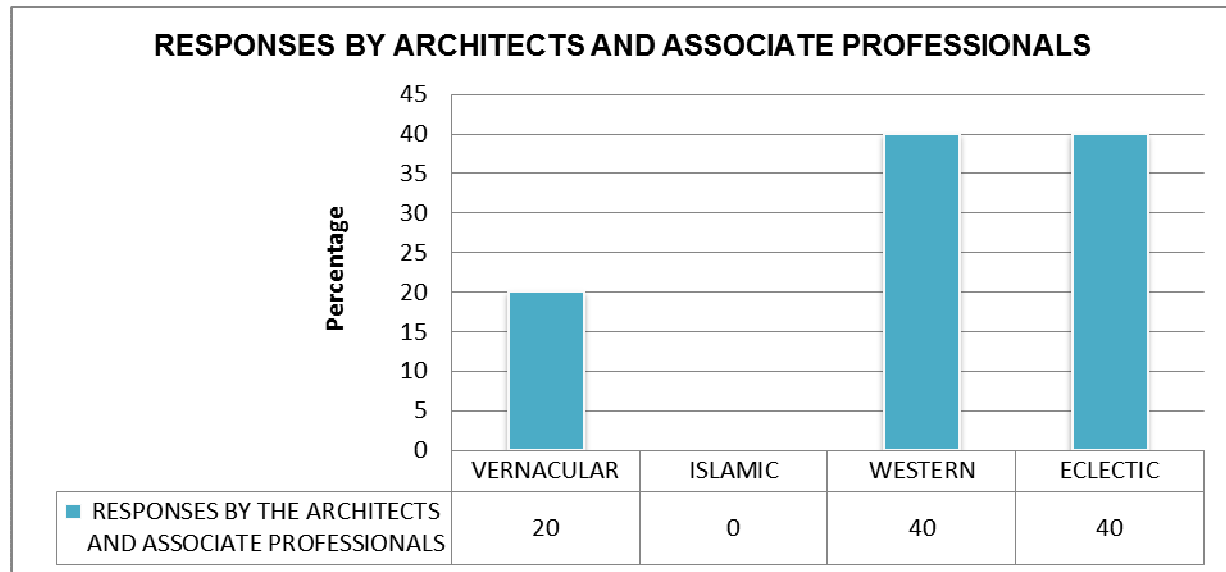


Figure 1.7, *Response by Architects and associate professionals in relations to the category of design approaches.*

Composite analysis of responses from Chiefs, Staff, Architects and Associate professionals.

The graph below shows the results obtained from eighty respondents constituting thirty Chiefs, twenty-five staff of the National House of Chiefs and Regional and Traditional Councils and other related cultural buildings as well as twenty-five Architects and associate professionals constituting the sample size. It indicates that as many as 46.25% are in favour of the Eclectic design methodology. The reason being in order not to emphasize the Architecture of one region over others, it is ideal to borrow from some. It is followed by Western Architecture as the design methodology with 28.75%. The reasons advanced here is that, many are enthused with the use of glass on facades as it signified modernity. Those in favour of Vernacular Architecture constituted 22.5% and Islamic Architecture recorded 2.5% response. The low interest for Islamic architecture could be attributed to the low dominance of this architectural style in the country.

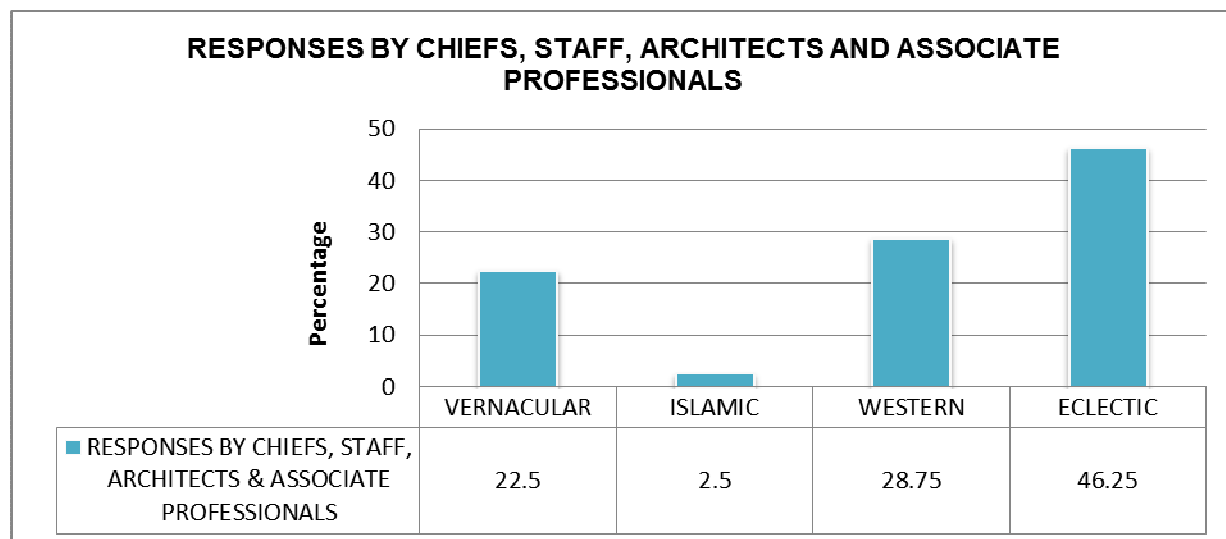


Figure 1.8, *Response by the Chiefs, Staff, Architects & associate professionals in relations to the category of design approaches.*

CONCLUSION

From the analysis shown that eclecticism is the ideal design philosophy for designing cultural buildings in Ghana. The reason being that Ghana is a culturally diverse society, as shown in its Architecture and therefore Cultural buildings which are supposed to represent the Ghanaian identity, should reflect the Architecture of various regions and all areas constituting Ghana. Eclectic Architecture had the highest approval rating followed by Western or International style Architecture, then Vernacular and Islamic Architecture.

REFERENCES

- Al-Hassan, A. (1975), *Palace of the Wa-Na*, a conservation and restoration study.
- Eaton, L.K. (1975), *the Architecture of Choice: Eclectism in America, 1880-1910*.
- Elleh, N. (1996), *African architecture: evolution and transformation*, McGraw-Hill companies. Inc.
- Gerald, L. (1990), *The pageant of world history*, Prentice-Hall
- Henry, G. L and Robert, S (2001), *a Greek-English Lexicon*, Perseus Digital Library.
- Hyland, A.D.C (1979), Fort St Jago and Elmina, Ghana.
- Jackson, J.S. (2010). *Western Civilization: A Brief History*. Cengage Learning.
- Larbi S.O (2007), *Colonial Styled Accra Supreme High Court*, Conference of the Ghana Science Association.
- Mignot, C. (1994), *Architecture of the 19th Century*. Taschen, Köln.
- Prussin, L. (1969), *Architecture in Northern Ghana*, University of California press
- Prussin, L. (1986), *Islamic design in West Africa*, Berkeley: University of California press.
- Prussin, L. (1974), *an Introduction to Indigenous African Architecture*, the Journal of the Society of Architectural Historians, Vol. 33, No. 3, pp. 182-205.
- Schreckenbach, H. (1983), “*Construction Technology for a Developing Country*”, GTZ Publications, pp 21-72.
- Swithenbank, M. (1969), *An Ashanti fetish house*, Ghana University press

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Recent conferences: <http://www.iiste.org/conference/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

