### **Architecture and Planning Journal (APJ)**

Volume 22 | Issue 1 ISSN: 2789-8547 Article 6

January 2013

# RE-DEFINING VERNACULAR ARCHITECTUREIN THIRD MILLENNIUM

Ibrahim Maarouf

Assistant professor, Department of Architecture, Faculty of Engineering ,Alexandria University, ibrahim.maarouf@gmail.com

Follow this and additional works at: https://digitalcommons.bau.edu.lb/apj

Part of the Architecture Commons, Arts and Humanities Commons, Education Commons, and the Engineering Commons

#### **Recommended Citation**

Maarouf, Ibrahim (2013) "RE-DEFINING VERNACULAR ARCHITECTUREIN THIRD MILLENNIUM," *Architecture and Planning Journal (APJ)*: Vol. 22: Iss. 1, Article 6.

DOI: https://doi.org/10.54729/2789-8547.1109

#### RE-DEFINING VERNACULAR ARCHITECTUREIN THIRD MILLENNIUM

#### Abstract

The key purpose of this paper concerns the definition of vernacular architecture in third millennium; a topic which gives the impression of confusion from the beginning when it was a word in the book of Rudofsky. In redefining this term, supplementary conceptual issue will need to be focused briefly and the role of classification will need to be more generally because of an inextricably linked between these two matters. It may seem strange to raise such a basic question again about "What is vernacular architecture?"; because, up till now, it needs to be addressed. There has been a major revitalization of interest in vernacular architecture, indicated by an ever increasing number of conferences, meetings, exhibitions and publications dealing with this subject. So far, strangely, the nature of what is being deliberated has been taken as self-evident and not tackled. There has been no reconsideration of what vernacular is, no definition either of the domain broadly or the subject matter specifically. During the discussion, this paper includes some design approaches and processes to clarify the technique which can be used to achieve an architectural building design addressed by vernacularism.

#### **Keywords**

Vernacular, local, mysticism, concept, sustainability.

## RE-DEFINING VERNACULAR ARCHITECTURE IN THIRD MILLENNIUM

#### Maarouf, Ibrahim<sup>1</sup>

#### Abstract

The key purpose of this paper concerns the definition of vernacular architecture in third millennium; a topic which gives the impression of confusion from the beginning when it was a word in the book of Rudofsky. In redefining this term, supplementary conceptual issue will need to be focused briefly and the role of classification will need to be more generally because of an inextricably linked between these two matters. It may seem strange to raise such a basic question again about "What is vernacular architecture?"; because, up till now, it needs to be addressed. There has been a major revitalization of interest in vernacular architecture, indicated by an ever increasing number of conferences, meetings, exhibitions and publications dealing with this subject. So far, strangely, the nature of what is being deliberated has been taken as self-evident and not tackled. There has been no reconsideration of what vernacular is, no definition either of the domain broadly or the subject matter specifically. During the discussion, this paper includes some design approaches and processes to clarify the technique which can be used to achieve an architectural building design addressed by vernacularism.

#### **KEY WORDS:**

Vernacular, local, mysticism, concept, sustainability.

#### INTRODUCTION

Vernacular and vernacularism, sound words have been used for different purposes and repeated in the field of architecture. To understand the meaning of that word "Vernacular", spatially in architecture, the basic word which it was derived from should be discussed. From the linguistic point of view, the word "Vernacular" was derived from the Ancient Roman Language word "vernaculus" which came from the origin one "verna". The real meaning of "verna" according to Latin is native slave. As an adjective, Vernacular as an English word means indigenous, common, obsolete and native (Merriam-Webster, 2001). But, as a noun, it refers to any medium term that reflects popular style. And from the last given meaning, the discovery of vernacular architecture can be appeared, that by using equivalent approach of words, the term vernacular architecture is equal to the popular style in building design. Actually, to find out the real meaning and concept of that term "Vernacular Architecture", the story of first display of that term should be discussed and notable.

Vernacular architecture changed through time line from its initial concept to different levels of generating ideas. At past, some confusion between traditional, local and vernacular buildings was founded during evaluation of buildings which need to be classified by their characters. At Present, the idea of vernacular architecture turned from its origin meaning as a part of native and traditional approach of architecture design to the highly stylistic approach for generative thinking.

<sup>&</sup>lt;sup>1</sup> Assistant professor, Department of Architecture, Faculty of Engineering ,Alexandria University

Various scales of dwelling unit, as a basic design sample for the concept of vernacular in architecture, are started to take a part in building and urban design. Here, new question rises to emphasize an important vision for high-rise residential buildings. Could they be addressed as high-rise vernacular buildings? Or they are dissimilar buildings with another architectural characteristic style.

This research paper has been divided into five consecutive parts. First, the historical background of vernacular architecture is briefly discussed and the story of that term is concisely reviewed. The second part presents current definitions and observations about those definitions. The design process and products in case of vernacular architecture are discussed in third part, with the suggested indicators for each step and level of those issues. The vision of vernacular architecture in third millennium is presented in fourth part with description of the lessons from vernacular architecture and the use of those lessons towards sustainability in architecture. The concluding part five is a wrap-up suggested definition for vernacular architecture in third millennium according to the research treatment.

#### HISTORICAL BACKGROUND OF VERNACULAR ARCHITECTURE

According to the statement of Pugin: "the history of architecture is the history of the world" (Belcher, 2003), and from the discussion of Suha Özkan in his paper about (*Traditionalism and vernacular architecture*): "Throughout the centuries, those who have theorized on architecture have attempted to define the genesis of architecture or the point zero condition from which architecture originated and developed."(Asquith and Vellinga, 2006, pp. 101 - 102), The history of vernacular architecture should be studied through grouping of statements which have been mentioned during different centuries, with a trial to go back deep in history as much as it possible to find out the real "zero point" of that kind of architecture what is called vernacular.

First in the primitive way of life, the prehistoric men tried to use the available places and materials to generate a shelter.

In the tomb of Seti the first, a drawing of an old Egyptian house was demonstrated in its wall with sort of materiality and design features that had been used in that dwelling. Flax plant was applied for the guard post which gave a special character for old Egyptian house. Mud bricks were used for walls with slope as structural identity for that ancient style.

In eighteenth century, the French theorist Laugier presented his idea about primitive beauty through his essay on architecture which was released in 1753. In cover of this book the plate which described the relation between Laugier and primitive beauty was used to address an approach of traditional and primitive way of building in the vision of Laugier.

In nineteenth century, travellers narrated stories in European magazines about the unusual places they visited and these stories often include descriptions of typical buildings on each place, and those buildings created sort of curiosity in scene.

In twentieth century, much more evidences had been occurred for the traditional, local and let us say vernacular architecture. In his exhibition and book with the same title (*Architecture Without Architects*), Rudofsky referred to that kind of authenticity innate in vernacular architecture.

Twentieth century delivered the term vernacular architecture with several events and books. From the exhibition of Rudofsky to the Encyclopedia by Paul Oliver, the term started to be repeated and negotiable. But actually, the term was used since 1818 in European magazines and became an architectural expression in the first half of twentieth century. What happened through the architectural history and architectural writing during twentieth century related to the term of vernacular? A question should be answered to verify the situation of using the term of vernacular in architecture.

In 1946, Hassan Fathy designed New Gourna (Figure 1) in Upper Egypt using Nubian technologies and systems.

His design contained mud brick vaults integrated with flat wooden roofs. The village was one of the first endeavours to address the social and environmental needs of building users by adopting the approaches and forms of the vernacular. Some theorists called the work of Fathy, local architecture not vernacular one.





Figure 1: New Gourna village (master plan and view from piazza).

DOI: 10.54729/2789-8547.1109

- In 1964, after almost twenty years from Fathy's village, Rudofsky highlighted dissimilar examples from different countries such as Poland, Morocco and Syria, to discuss the role of primitive and local beauty (Rudofsky, 1964). In his book, again like Luagier, he described his idea about beauty by demonstrating the pate of North American tree dwellers whish was drawn in 1668. His book was sort of catalogue of photos for architecture buildings that were designed without architects.
- In 1969, Amos Rapoport presented his studies about vernacular architecture in his book titled with "House Form and Culture". The book treated in its chapter alternative theories and socio-culture and technological factors with a prospect for the present in field of developing countries using the culture base for architectural expressions (Rapoport, 1969).
- In 1970, Chales Correa designed an apartment building in Bombay (Figure 2). He distributed four types of dwelling units within the eighty five meters height by making interacted levels between different units. Construction system of the building was the load bearing one. Despite the height and the luxury of the building, Correa could have a good relation between the outside and inside of dwelling unit with creation an optimum climatic atmosphere in different orientation.

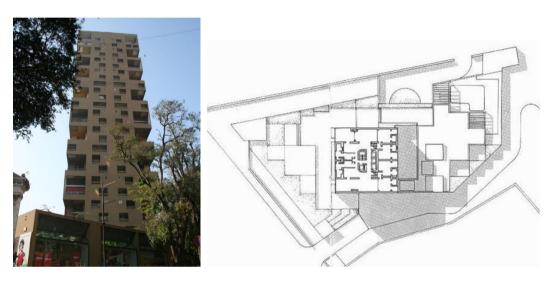


Figure 2: Kanchanjunga Apartments (general view and site layout).

- In 1977, Christopher Alexander published his famous book "A Pattern Language: Towns, Buildings, Construction" in which he discussed his ideas about what might call generative grammar with the demonstration of adaptive features of traditional architectural that apply across cultures. He depended on his observation about medieval cities and how far they are attractive (Alexander, 1977). For him, the reason of these attraction belonged to the way they were built according to specific and local regulations and features.
- In 1977 also, Robert Venturi published his book about Las Vegas after an analytical study. The book was titled with "Learning from Las Vegas". He used in his demonstration and analysis the concept of industrial vernacular and the term of commercial vernacular (Venturi, 1977). Both of the demonstrated concept and term about vernacularism were negotiated through highlighting on the aesthetics of public buildings such as factories, shops and garages. Here, a new prospect of dealing with vernacularism in case of architectural design started to be considered and gave the title of vernacular architecture not only for residential buildings but also for other types of buildings.
- In 1989, the first meeting of International Association for the Study of Traditional Environments was held. As an outcome of this meeting, which became a regular conference each two years, a book with the title of "Dwellings, Settlements and Tradition" had been published. The core issue of this book was the identity, renovation of traditions and sustainability (Bourdier and AlSayyad, 1989).
- In 1997, Pual Oliver by his nuanced work "Encyclopedia of Vernacular Architecture of the World" gave an environmental approach to analyze adaptation of many buildings. He argued that importance of environmental adaptation is needed for giving guarantee for sustainability in each culture and economic aspects (Oliver, 1997).

So, the history of vernacular architecture goes back almost to two centuries long if the use of term is considered. But, if the idea of locality and traditions taken into consideration as roles of vernacularism, the history of vernacular architecture will go back deeper into old and old centuries. Despite all that hassle of determination of the point zero of vernacular history, as mentioned in the giving background brief, studies of vernacular architectural and fine tuning of the term was established in last two decades. The formulated definition for vernacular architecture and influences on it were shaped during those two decades and became clearer.

#### CURRENT DEFINITIONS AND OBSERVATIONS

Modern architecture was the wide title for architectural works during the twentieth century. But, modernism as a general label does not afford specific uniqueness for each individual architectural character. Debatable argument is still negotiated about the relation between modern architecture and culture identity. Kenneth Frampton, in his book "Modern Architecture: a Critical History", he discussed this relation under title of "Critical Regionalism". He presented, through this title, idea about the concept of culture in either local or national form (Frampton, 1992). The concept of them is an inconsistent suggestion not only because of the present contrasts between rooted culture and global civilization but also because of all cultures, both ancient and modern, seem to have depended for their inherent development on a certain cross-fertilization with other cultures. From that point of view, culture identity tried to achieve a major aspect of transformation from initial architectural concept into realistic building. Culture is not only the influence on vernacularism, but it is most arguable one.

What is vernacular architecture influenced by? Answer of this query spots on wide range of different aspects which effect on the product of vernacular architecture. As previously explained, culture is one of the influences on vernacular architecture. Climate, environment and materials are also some of influences.

- Climate is the aspect that responsible about the division of vernacular architecture into sub titled one. For example, Mediterranean vernacular is addressed by the macro climatic treatments according to the local area of which the building is constructed in. The actual interpretations of climate in vernacular buildings are observed in either shape or form of building and dimensions of the materials. In all case, the building with those vernacular characteristics is adopted with ratio of humidity, level of precipitation, wind directions and thermal rates.
- Environment and precisely local environment determines the available resources to be used in building
  industry. Topography, soil types and existing construction resources are the aspects of environmental
  effects on architecture in case of vernacular.
- Materials are the second responsible aspect for some sub division of vernacular architecture typology. By this aspect, wooden and mud vernaculars raise as an architectural expressions which present the basic material that was used in the building construction. Despite of any details or ornamental motifs, materials act the main role for the building formation and appearance.
- Finally, back to culture aspect, culture is represented in some other architectural domains such as functions, decorative elements and social interactions. Culture identity controls very detailed of the way of life for each family and its response and behaviors against community. Size of family, sharing of areas, cooperation of daily duties, and interaction between each other are the common figures that lay under the title of cultural identity.
- Here come to definitions themselves, many experimental words were used to verify the term of vernacular architecture during some written books and researches which had been tackled for architectural maters in case of traditional, vernacular and sustainability. The following are some of those definitions with who defined and brief comments:
- Vernacular architecture is defined as a building designed by an amateur without any training in design; the individual will have been guided by a series of conventions built up in his locality, paying little attention to what may be fashionable. The function of the building would be the dominant factor, aesthetic considerations, though present to some small degree, being quite minimal (Brunskill, 2000). Local materials would be used as a matter of course, other materials being chosen and imported quite exceptionally.
- Main factors and constrains of vernacular architecture in Brunskill's definition are function, local materials and conventional local buildings. The definition summarized the influences of culture and environment without any referring to climatic aspect.
- Comprising the dwellings and all other buildings of the people. Related to their environmental contexts and available resources they are customarily owner- or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of life of the cultures that produce them (Oliver, 1997).
- Long phrases were used to inform about each issue of different aspects and factors which may be contained in the output of vernacular architecture product. But, in the same time, condensed statement was ended up by concluded the relation appropriateness between vernacular and culture. Also the definition excludes the role of climate.
- Folk building growing in response to actual needs, fitted into environment by people who knew no better than to fit them with native feeling, Frank Lloyd Wright said in his description of vernacular architecture (Oliver, 2003, p. 9).

- Sort of impression about traditional was sounded through the definition more than about vernacular. Spirit of primitive is noticed, but local culture is presented clearly in the definition.
- The architecture of the people and by the people but not for the people (Oliver, 2003, p. 14). A simple definition was offered by Oliver also. The definition concentrates on the people at all. If translation of people is aimed to simplify the statement, culture properties are nearest significant meaning. But, the term "not for the people" is mysterious in its relation with idea of definition. Simplest terminology for the previous term is "non affordable", that the people build for themselves only and not for others.
- All the previous definitions provided that vernacular architecture is based on traditional or primitive conceptual approaches. Finally, a general definition which was created from evaluating and composing of all different definitions is that, vernacular architecture is the term that used in the area of architectural theory to classify methods of construction which use local resources and traditions to address local needs and conditions. It is inclined to develop over time to reflect the environmental, cultural and historical context in which it exists.

### IN THE MATTER OF VERNACULAR DESIGN FROM THE PROCESS TO THE PRODUCT

Most of previous definitions refer to the vernacular architecture as a popular and primitive creation without architects or professions, although group of architects are nominated as vernacularist. So, vernacular design as a matter of practice and profession has specific characteristics which divided into two other major categories. Amos Rapoport, in his paper "Defining Vernacular Design", had mentioned list of characteristics. The following is brief statements about process and product characteristics as sub-division of vernacular design one, with demonstration of degree of effects and suggested issues related to each characteristic as a contribution of this paper.

Process characteristics can be discriminated among vernacular environments. As any design process, group of issues can be separated clearly by classifying the process itself and its needs. The designer, the media, the criteria of design, and the knowledge are concerned as initial factors of design process. The characteristics which related to the designer are:

- Identity of designers.
- Intention and purposes of designers.
- Degree of anonymity of designers.

And for the media, models of design, which include architecture model, construction model and formed and intersected models, present the range of tools to be used through designer's technical procedure. Those characteristics are:

- Reliance on a model with variations.
- Presence of a single model or many models.
- Extent of sharing of model.
- Nature of schemata underlying the model.
- Consistency of use of single model of different parts of house-settlement system.
- Type of relationships among models used in different types of environments.
- Specific of choice model of design.

The criteria of design can be summarized in:

- Congruence of choice model and its choice criteria with shared ideals of users.
- Degree of congruence and nature of the relation between environment and culture/ lifestyle.
- Use of implicit/ unwritten vs. Explicit/ legalistic design criteria.
- Degree of self-consciousness/ unselfconsciousness of the design process.

In the level of knowledge, the characteristics are:

- Degree of constancy/ invariance vs. Change/ originality of the basic model.
- Form of temporal change.
- Extent of sharing of knowledge about design and construction.

The following table illustrates the suggested issues which are related to characteristics with the approximation of level of effectiveness for each one. Level of effectiveness was evaluated by researcher according to analytical study which used point system for group of projects that considered as vernacular works.

	Process Characteristics	Suggested Issue	Level Of Effectiveness
Designer	Identity of designers	Character	
	Intention and purposes of designers	Creativity	
	Degree of anonymity of designers	Team work	20 %
Design Media and Models	Reliance on a model with variations	Variety	
	Presence of a single model or many models	Complexity	
	Extent of sharing of model	Continuity	
	Nature of schemata underlying the model	Vitality	%
	Consistency of use of single model of different parts of house-settlement system	Unity	40 %
	Type of relationships among models used in different types of environments Specific of choice model of design	Identity	
	Specific of choice model of design	Uniqueness	
Design Criteria	Congruence of choice model and its choice criteria with shared ideals of users	Locality	
	Degree of congruence and nature of the relation between environment and culture/ lifestyle	Ideology	%
	Use of implicit/ unwritten vs. Explicit/ legalistic design criteria	Traditionalism	30
	Degree of self-consciousness/unselfconsciousness of the design process	Rationalism	
Knowledge	Degree of constancy/ invariance vs. Change/ originality of the basic model	Clarity	
	Form of temporal change	Synchronization	%0
	Extent of sharing of knowledge about design and construction	Updatability	_

Product characteristics also can be divided into major properties of any architectural product. Shape, form, materiality, and perception are the common properties for architectural outcome of design process with practice. The characteristics which related to the shape and form are:

- Degree of cultural and place-specificity.
- Specific model, plan forms, morphology, shapes, transitions, etc.
- Nature of relationships among elements and the nature of underlying rules.
- Presence of specific formal qualities: complexity, solid-void relationships, fenestration, massing and volumes, articulation level changes and how handled, the nature, complexity and articulation of urban of light and shade, use of vegetation, etc.
- Complexity at largest scale due to place specificity.
- Complexity at other scales due to use of a single model with variations.
- Open-endedness allowing additive, subtractive and other changes.
- Open-endedness regarding activities: types, number, overlaps, multiple uses, etc.

#### While those for materialities are:

- Use of specific materials, textures, colours, etc.
- Nature of relation to landscape, site, geomorphology, etc.
- Effectiveness of response to climate.
- Efficiency in use of resources.
- Presence of stable equilibrium.
- Degree of multisensory qualities of environment.
- For architectural perception and relation with building context, the characteristics are:
- Clarity, legibility and comprehensibility of the environment due to the order expressed by the model used.
- Complexity due to variations over time.
- Degree of differentiation of settings: number, types, specialization, etc.
- Effectiveness of environment as a setting for lifestyle and activity systems and other aspects of culture.
- Ability of settings to communicate effectively to users.
- Relative importance of fixed-feature element vs. Semi-fixed feature element.

The following table demonstrates the suggested issue which related to product characteristics with the estimation for degree of value (according to point system) for each one.

	Product Characteristics	Suggested Issue	Level Of Effectiveness	
Shape and Form	Degree of cultural and place-specificity	Locality		40%
	Specific model, plan forms, morphology, shapes, transitions, etc	Transformation		
	Nature of relationships among elements and the nature of underlying rules	Rationalism		
	Presence of specific formal qualities: complexity, solid- void relationships, fenestration, massing and volumes, articulation level changes and how handled, the nature, complexity and articulation of urban of light and shade, use of vegetation, etc	Plasticism		
	Complexity at largest scale due to place specificity	Identity		
	Complexity at other scales due to use of a single model with variations	Variety		
	Open-endedness allowing additive, subtractive and other changes	Formation		
	Open-endedness regarding activities: types, number, overlaps, multiple uses, etc	Functionalism		
	Use of specific materials, textures, colours, etc	Identity		30 %
ity	Nature of relation to landscape, site, geomorphology, etc	Rationalism		
Materiality	Effectiveness of response to climate	Adaptability		
	Efficiency in use of resources	Applicability		
	Presence of stable equilibrium	Optimization		
	Degree of multisensory qualities of environment	Locality		
Architectural Perception	Clarity, legibility and comprehensibility of the environment due to the order expressed by the model used	Unity		30 %
	Complexity due to variations over time	Clarity		
	Degree of differentiation of settings: number, types, specialization, etc	Variety		
	Effectiveness of environment as a setting for lifestyle and activity systems and other aspects of culture	Ideology		
	Ability of settings to communicate effectively to users	Communicability		
	Relative importance of fixed-feature element vs. Semi- fixed feature element	Expressionism		

According to the previously tables, spectrum of issues are nominated to outline the conceptual approaches to achieve vernacular architecture throughout design process for simplifying building product as it should be. Some of issues are repeated to clarify the weight of its value among the generative thinking in vernacular architectural design.

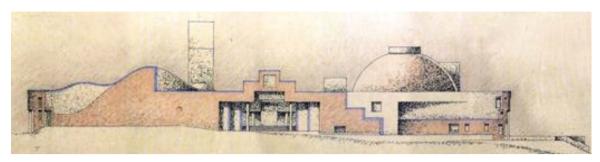
#### Vernacular Architecture and Third Millennium

What have been discussed obviously on those three parts of the paper, are sort of descriptive and analytical study for either books or works which related to the term of vernacular architecture during the second millennium. This coming part will remark some other architectural writing or projects that deal with the same term but in third millennium.

At the second half of 90's of last century, some architectural projects were completed to introduce new approaches for vernacular design concepts. With the continuity of old methodologies, some new trends start to take place among architectural movements in third millennium in case of vernacularism. The following projects highlight aspects and general concepts for vernacular as a new-old trend. Brief statements will be illustrated as a result of examining and studying the projects to evaluate vernacular issues which applied on them.

In 1996, State assembly in Madhya Pradesh, India (Figure 3), a project which is designed by Charles Correa, was completed and opened. Beyond the locality which had been situated through plan layout of the building that related to the basis temple planning, Correa expressed his knowledge about Indian culture by transforming sequence of interconnected spaces from house to public building (Richardson, 2001, pp: 214 – 217). The relation between courts and closed halls came from Indian housing. The bases to classify the work as vernacularism depended on culture identity and architectural motifs. Natural lighting and colours were used to address freedom as an objective of the building. Contradiction between idea of freedom and symbolism of the past was criticized by architectural writers. Despite of contradiction and criticism of the project, the building exhibited traditional aspect with modifications of

Despite of contradiction and criticism of the project, the building exhibited traditional aspect with modifications of architectural vocabularies to enhance old vernacular concept as a developing traditional architecture into local symbolist vernacularism



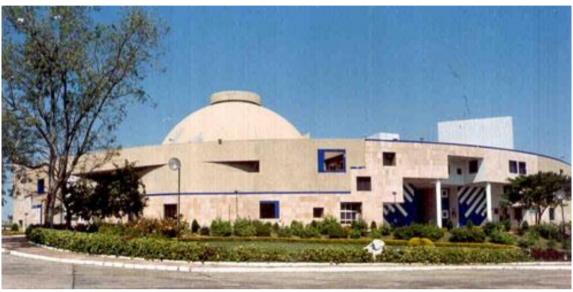


Figure 3: State Assembly in Madhya Pradesh, India (Sketch and general view).

In 1997, Antoine Predock design was applied for Arizona Science Center (Figure 4). The building was designed as an integral part of urban landscape. For Predock, wind direction, sun movement and form of landscape are the basic concerns to generate vernacularism. He used to create sculpture land forms in his project, and he did the same with Science Center when he worked with clay models to form the building (Richardson, 2001, pp. 152 – 157). In the opposite direction from narrow locality of vernacular architecture trends, Predock borrowed the forms and light effects of the Sonoran Desert and integrated them with urban landscape to generate outdoor activities and journey. As a vernacular work, the concept of design established with wider locality. But, Predock could create new approach for design scheme using the clarity of landscape relationships to find out interactions and communicability between users and building environment.



Figure 4: Arizona Science Center.

In 2000, early in the beginning of third millennium, design of Werink for Indian Embassy in Berlin (Figure 5) was established after his winning of architectural competition. For the Indian government, the building of embassy should reflect contemporary vision of India and change the image of India from that in western mind (Richardson, 2001, pp. 118-121). The traditional impressionism was affected on the design layout and details of the building

https://digitalcommons.bau.edu.lb/apj/vol22/iss1/6

DOI: 10.54729/2789-8547.1109

through stone cladding and window details which were related to Indian craftsmen. Here, approach of traditionalism was the conceptual idea for vernacular architecture, but the relation between the building with local context and environment is not complemented. Wernik tried to deal with the challenge by splitting the building into three parts according to cultural role.

A new vision of locality was generated by Wernik to address foreign identity within cultural interactions in global aspect.



Figure 5: Indian Embassy in Berlin.

In 2002, Scottish Parliament building (Figure 6) was completed. This building was classified as a vernacular architecture. Localism was the title for conceptual approach which had been used to form the building. Miralles with his wife decided to link Scottish national identity with the land (Richardson, 2001, pp. 106 - 111). They opened the Parliament on to Holyrood Park to create interactive areas for cultural changes and summarize the idea of national identity within the impression of global network. Here the locality expression was expanded from narrow perspective of project site to the wide vision of national localism. Vernacular architecture was borrowed to give identity for the building by detailed features and landscape networking.



Figure 6: Scottish Parliament building.

In 2006, Jatmika and Ikaputra completed their work of developing "Honai Design", a new design for Indonesian traditional dwellings (Figure 7). The aim of the project was improving the health environment of housing behavior for Indonesian residents in Papua. Environmental and climatic approach was the theme of vernacularism which they evolved. Computer fluid simulation (Figure 8) was applied to analyze the case study. After the analysis of both quality of space in the existing unit and social needs and culture of residents, Jatmika and Ikaputra determined the problem of unit design which produced unhealthy environment which affected on general health in settlement. They created a new design for dwelling unit by trial and error using wooden models with

computer assessment to evaluate the different results (Figure 9). Finally they cooperated with residents to build and develop a pilot project (Figure 10). Here the building was built by the people and for the people; also it seemed to be of the people. Against Oliver statement, new Honai design succeeded to generate vernacular architecture which completely created by people and their own technologies.



Figure 7: Old Indonesian traditional dwellings in Papua.

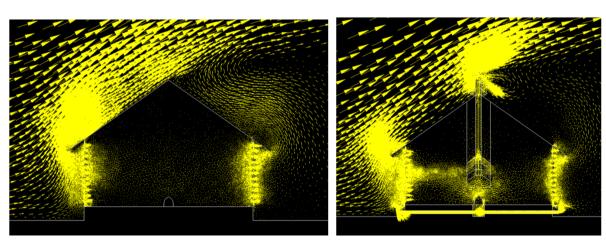


Figure 8: Computer fluid simulation for old dwelling.

Figure 9: Fluid simulation for new proposal.



Figure 10: Neo Honai Design pilot project

Third millennium brought new technologies for building techniques beside new tools for architectural studies. The vernacular architecture changed from traditionalism to symbolism. Identity expanded their properties from localism to globalism. Cultural aspect and climatic features started to be inspiration for new vernacular expressionism.

#### RESULTS AND DISCUSSIONS

#### CONCLUSION A New Definition of Vernacular Architecture

From Oliver's statement about vernacular architecture to the new statement which concluded from the last demonstrated project in this paper, wide range of amendments went into conceptual approaches for vernacular design. Generative thinking and global perspective were taking roles in new vision of vernacularism. From current definitions to characteristics of vernacular environments, list of suggested issues were not included among different definitions such as: communicability, variety, adaptability and updatability. New definition for vernacular architecture starts to be essentially needed for expanding the idea and accommodating wide spectrum of additional dimensions for design factors.

As shown before, different percentages were remarked for process and product characteristics which should be reflected into detailed vocabularies of new definition. So the definition of vernacular architecture can be divided into group of terms consists of: area of interest, criteria of design, designer properties, media of work, properties of outcome and major expression of conceptuality. Analyzing the contents can lead to that aimed new definition or used to re-define the term of vernacular architecture. The following is a simple analytical illustration for the given stuff:

- Area of interest: theory of architecture, construction, architecture design
- Criteria of design:rationalism, traditionalism, localism
- Properties of designer:cooperative, creative, contemporary
- Media of work:type of design models, technology
- Properties of outcome:enhanced forms, adapted shapes, optimization
- Expression of conceptuality:symbolism, globalism, popular, etc

As a result from previous analysis, new definition for vernacular architecture can be proposed as following:

Vernacular architecture is the term that applied in architectural and construction designs and theories within rational localism identification by contemporary creative architect who uses different types of design models among existing technology to generate optimum enhanced architecture under the title of wide spectrum of globalism, symbolism and updatable architectural themes.

#### REFERENCES

Alexander, Christopher (1977) A Pattern Language: Towns, Buildings, Construction. Oxford University Press.

Asquith, Lindsay and Vellinga, Marcel (2006) Vernacular Architecture in the Twenty-First Century: Theory, Education and Practice. TJ International Ltd.

Belcher, Margaret (2003) The Collected Letters of A.W.N. Pugin: Volume 2 1843 to 1845. New York: Oxford University Press.

Bourdier, Jean-Paul and AlSayyad, Nezar (1989) Dwellings, Settlements, and Tradition: Cross-Cultural Perspectives. University Press of America.

Brunskill, Ronald (2000) Illustrated Handbook of Vernacular Architecture. 4th Edition. London: Faber and Faber.

Frampton, Kenneth (1992) Modern Architecture: A Critical History. New York: Thames and Hudson.

Laugier (1977) Essay on Architecture. Los Angeles: Hennessey [First Published Paris, 1753].

Merriam-Webster (2001) Merriam-Webster's Collegiate Dictionary. 10Th Edition. Merriam-Webster, Incorporated.

Oliver, Paul (1997) Encyclopedia of Vernacular Architecture of the World. Cambridge University Press.

Oliver, Paul (2003) Dwellings. London: Phaidon Press.

Rapoport, Amos (1969) House, Form and Culture. New Jersey: Prentice-hall.

Richardson, Vicky (2001) New Vernacular Architecture. Laurence King Ltd.

Rudofsky, Bernard (1964) Architecture Without Architects: A Short Introduction to Non-Pedigreed Architecture. University of Mexico Press.

Venturi, Robert (1977) Learning From Las Vegas. MIT Press.