

Advances in Science, Technology & Innovation
IEREK Interdisciplinary Series for Sustainable Development

Rafael Cano-Guervos · Jorge Chica-Olmo ·
Juan Gabriel González Morales · Muhammad Nawaz Tunio ·
Fabio Humberto Sepúlveda Murillo · Marina Checa Olivas ·
Ayman M. Zakaria Eraqi *Editors*

Sustainability in Creative Industries

Integrating Design, Culture, and Urban Solutions—
Volume 2

Advances in Science, Technology & Innovation

IEREK Interdisciplinary Series for Sustainable Development

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Editors

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Integrating Design, Culture, and Urban
Solutions—Volume 2

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Introduction

At the crossroads between creativity and sustainability, sustainability in creative industries emerges as an understanding and convergence of creative innovation and environmental responsibility. This book seeks to represent the understanding and promotion of sustainability in a diversity of creative fields, from architecture to cultural heritage preservation, and from urban planning to human-centred solutions. In a world where resources management and environmental protection are prevailing challenges, this book is positioned as an essential compendium for those seeking to merge creative potential with environmental responsibility.

We will explore sustainable architecture in depth, where vision and practice combine to shape a more sustainable future. From materials committed to environmental quality to design systems and materials committed to buildable development, this segment not only presents concrete solutions, but also raises provocative questions about how architecture can lead the way to a more sustainable world.

The preservation of cultural heritage is seen as a connection to sustainability in the second part of the book. In this part, innovative practices and approaches are examined that allow industries to move forward with a strong innovative character while protecting the cultural legacy of past generations. Starting with the conservation and revitalisation of historic spaces, this segment unfolds a comprehensive view of how architectural creativity can ensure cultural preservation in the context of an increasingly socially and environmentally responsible world.

The third and final part brings the focus to the city, the epicentre of modern life. Here, it unpacks the complexities of urban planning and how creativity can help transform the design of urban spaces to maximize sustainability and quality of life. From disruptive technologies to human-centred approaches, this segment presents a bold vision of how the cities of the future can be engines of sustainable progress and collective well-being.

Sustainability in creative industries is a book based on the convergence of imagination and social and environmental responsibility. Through the book, it seeks to inspire innovation in architects, urban planners, and all those committed to a sustainable future and to driving creative innovation forward, grounded in social, equitable, and resilient engagement.

Juan Gabriel González Morales

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Neo-vernacular Approach to Application of Roof Shape of Architectural Building in West Sumatera as a Conservation of Cultural Heritage

Resky Annisa Damayanti, Erick Teguh Leksono, Riana Putri Indrayani, and Valencia Natalie Piet

Abstract

Neo-vernacular architecture is an architectural concept that emerged from the blend of local architecture and modern architecture. The application of the neo-vernacular architectural concept to buildings in West Sumatra aims to display the face of traditional Minangkabau architecture through the roof of the building. However, there is no evidence of '*alua jo patuik*' or conformity based on customary procedures that are in place. The purpose of this study is to analyze the identity and meaning of modern architectural buildings, especially on the roof in relation to architectural development. As support for cultural preservation, it is necessary to have a building design approach that pays attention to regional characteristics/regionalism while still paying attention to the environment, namely by designing local characters, in accordance with the environment and adapting to current conditions. This can be done with a neo-vernacular architectural approach that acculturates culture by presenting new forms by renewing old elements, so that new opinions occur and then are given old meanings to avoid culture shock. The method used is descriptive qualitative by analyzing aspects of several buildings based on the ideology, principles, and concepts of neo-vernacular design. The character of Neo-Vernacular architecture in one of the modern buildings in West Sumatra, the Great Mosque of West Sumatra in the city of Padang. Shown by the elements and characteristics of West Sumatra culture in order to preserve local elements that have been formed empirically by tradition and develop it into modern and environmentally friendly style, namely adjusting to environmental conditions (climate) so that it is harmonious

with the appearance of the building and looks more modern even though it uses some old forms.

Keywords

Architecture • Neo-vernacular • Roof • West Sumatra

1 Introduction

Neo-vernacular architecture is an approach to obtain architectural compositions by referring to the local environment that takes physical and non-physical elements (thought patterns, beliefs/views on space, culture, religion, and philosophical values) into concepts and design criteria into contemporary for (Sumalyo, 1997). Neo-vernacular architecture has criteria that affect the building, namely the form using cultural and environmental elements (architectural physical forms), using cultural mindsets and beliefs (non-physical forms), the products produced in buildings produce new works and always use local forms and materials or follow the environment.

Along with the times that occur in today's society is the emergence of a shift or change in architectural form in the cultural order. The process of cultural adaptation to 'foreign' culture has 2 (two) patterns. First, Convert Culture is a culture that is difficult to change or changes that take a long time. For example: cultural values, or customs that have been widely netted. Second, Overt Culture is the embodiment of what seems to be rapidly changing, such as: procedures and lifestyles, as well as the tools and objects used (Linton in Koentjaraningrat, 1999).

As a result of the intersection of local culture and foreign culture, there was a process of acculturation of neo-vernacular designs. In the process of cultural acculturation for the architectural appearance, there are 4 (four) kinds of patterns resulting from changes that occur in it, namely: (a) Fixed forms and meanings are architectural forms whose

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meanings remain the same and continue to repeat and adopt the old forms, although with some changes of building materials; (b) Fixed forms with new meanings, namely architectural forms that are given new meanings, but keep repeating and adopting old forms; (c) New forms with fixed meanings, namely architectural forms that present new forms by updating old elements, so that new interpretations occur and then give old meanings to avoid culture shock; (d) New forms and meanings (changed) are architectural forms that present new forms and meanings, because there is a total architectural change which means that the old culture will be abandoned or continue to be used only for ornaments/decorations.

Such rapid changes will certainly demand the local architectural treasury in Indonesia. Indirectly, local architecture which is better known as vernacular architecture demands a more coordinated architectural approach and requires a more effective level of supervision, but the problem is the extent to which the form of vernacular architecture has meaning and identity which at the same time acts as a reflection of culture. In connection with this, it can be said that vernacular architecture is one of the identities or identities of a culture that has an important meaning.

The purpose of this study is to analyze the identity and meaning of modern architectural buildings, especially on the roof in relation to architectural development. As support for cultural preservation, it is necessary to have a building design approach that pays attention to regional characteristics/regionalism while still paying attention to the environment, namely by designing local characters, in accordance with the environment and adapting to current conditions.

One of the neo-vernacular approaches is applied to new and modern architectural buildings in West Sumatra. The most striking architectural changes in West Sumatra are the many modern office buildings that take the shape of a gonjong roof to show the character of West Sumatra. Architectural changes in West Sumatra have more or less influenced the social changes of the people. Social change is an inclusive concept that refers to changes in social phenomena at various levels of human life, starting from the level of individuals, interactions, institutions, communities, societies, cultures, civilizations to the global level (Lauer, 1993). While Weilenman (1994: 9) argues that social change is based on people's thinking and its parts require adjustment to the social and physical environment. People adapt to changes that are relevant to their environment. Society undergoes socio-cultural change and transforms itself in order to show its nature to remain as itself in order to achieve its fundamental goals.

The local community's tendency to erect gonjong roofs on modern architectural buildings in West Sumatra should be appreciated and imitated. The application of the gonjong roof

shape in modern architectural buildings cannot be separated from the participation of Mr. Harun Zain who served as Governor of West Sumatra in the era of the 70s. On his initiative, the Governor's office as well as all buildings located on main roads are required to display the face of traditional Minangkabau architecture through the gonjong roof. Even though the existence of the gonjong roof still exists, the 'alua jo patuik' or the suitability of something based on customary procedures and located in its place, namely between the gonjong roof and the building, although its philosophical and symbolic meaning has not changed. The benefit of this paper is as a reference for a building design approach that pays attention to regional characteristics/regionalism while still paying attention to the environment.

Bearing in mind all these possible attributes in this field, one main question is arisen through this research: How is the application of neo-vernacular in architectural buildings in West Sumatra based on the criteria, characteristics, and concepts of cultural acculturation? Consideration of these questions can create opportunities to recognize and (re) value the identity and meaning of modern architectural buildings, especially the roof in relation to architectural development. Architectural identity should be dynamic so that in the end it is able to connect the red threads of local architecture with contemporary architecture along with the times. The history of the nation will be more easily understood by the next generation if it is shown with tangible evidence, one of which is local architectural buildings that have values and philosophies.

2 Research Methodology

In this study, preliminary observations and in-depth knowledge are needed regarding the philosophy and meaning of gonjong roofs in traditional Minangkabau houses and about gonjong roofs adapted on modern architectural buildings in West Sumatra. Basically, qualitative research is not here to find the truth because it is more about collecting theories in the field which then builds or compiles them into an analysis that is presented in its entirety.

The benefits of descriptive qualitative research are that it can describe a case in depth about people and the environment around the case based on real conditions in the field, can present more than one point of view and information because the research results are not assumed by the researcher at the beginning of the study, but are obtained from participants and analyzed by the researcher. The data and information obtained from the field are drawn on the meanings and concepts through descriptive explanations and without using numbers because they prioritize the process (Semiawan, 2010).

2.1 Scope and Purpose

Data analysis was carried out after the researchers made in-depth observations of the research object and based on the study of literature. After the data is collected, then the data is analyzed using data management techniques. The data analysis used by the author in this study aims to answer the questions listed in the identification of the problem.

Qualitative primary data were obtained from informants: penghulu, mamak (head of heritage, indigenous peoples) using triangulation techniques (observations, interviews, and documentation related to the adaptation process of gonjong roofs which are widely used in modern buildings).

2.2 Analysis of Data

Data analysis is one of the research activities in the form of the process of compiling and managing data in order to interpret the data that has been obtained. Data analysis is an activity after data from all data sources is collected. Activities in data analysis are grouping data based on variables, presenting data, and conducting analysis to answer the formulation of the problem.

Data analysis is used to process data into information, the data will become easier to understand and interpret. The data to be analyzed is research data from field research and literature, then analyzed by the author to draw conclusions. In the data analysis stage, the researcher conducts discussions with student members until conclusions are drawn and reports are written to the process of making outputs in which students are also involved.

Data analysis is based on a comparison between vernacular and neo-vernacular buildings using a normative approach through traditional community leaders, informants, and related literature. In addition, a cultural approach is used to see the propriety that is formed as a result of the application of gonjong roof on modern architectural buildings in West Sumatra as an effort cultural heritage preservation.

3 Result and Discussion

3.1 Gonjong Roof in West Sumatera

The shape of the roof of Rumah Gadang which is also like a buffalo horn is often associated with Tambo Alam Minangkabau. Tambo Alam Minangkabau is a story about the victory of the Minang people in the event of a buffalo fight against the Javanese. According to the saga, the gonjong roof is a transitional form of buffalo horn. Buffalo which in the Padang language is called 'Kabau; is also a philosophy of the Minangkabau word'. Buffalo animals are

not only glorified because of philosophy but also used as an entertainment known as fighting kabau that is where the philosophy of the gonjong roof begins.

As a symbol of respect for the buffalo who had won the kabau fighting competition, the Minangkabau people adopted the form of buffalo horns on the roof of the Rumah Gadang building, so that until now the gonjong roof has the meaning of respect. The horns of the buffalo are not only glorified because of the philosophy that has a sacred value but also means as an animal that helps the survival of the people in the fields (symbolizing prosperity). That is where the philosophy and symbolic value of the gonjong roof which resembles a buffalo horn begins. In other words, the gonjong roof from a historical perspective comes from the efforts of the Minangkabau people to maintain their economy.

The gonjong roof is the highest part of each end of the roof facing upwards, and is the end of the turang wrapped with tin. Symbolic value is a sign that is manifested as a visual form for a certain meaning that is abstract but communicative for certain people. In the language of philosophy, symbols or signs are usually also known as semiotics which is defined as a general philosophical theory that deals with the production of signs and symbols as part of a code system used to communicate information (Navis, 1984).

The high roof imaged the human being as a human who controls nature but harmonizes himself with nature. This hilly and mountainous nature forms a balanced and harmonious composition with the shape of the building and in accordance with the Minangkabau people's view of life, '*alam takambang jadi guru*'. In addition to following the philosophy and way of life of the Minangkabau people, the roof is also made gonjong where the higher you go the sharper it is with the intention that the water slides easily. This has something to do with the natural environment where the natural factor of Bukit Barisan is that it often gets rain so that the water on the roof will easily slide down.

3.2 Building Roof in West Sumatra

The architectural building of the '*Rumah Bagonjong*' was built according to aesthetic requirements, meaning, and function in accordance with nature or containing the values of unity, harmony, and balance in its cohesive wholeness. Along with the development of the times, the gonjong roof on Rumah Bagonjong is also widely adopted by modern buildings that are used to characterize vernacular buildings. In West Sumatra, the most striking is the number of modern office buildings that take the gonjong roof to show the character of West Sumatra.

The history of architecture shows architecture developing and changing gradually. According to Gartiwa (2011: 96), vernacular architecture is part of the development of

architecture as a whole, part of history, the issue is whether the development of architecture from traditional to modern takes place in an evolutionary (slow) way, revolution (fast), or a jump that results in a break developmental continuity chain.

Architectural changes in West Sumatra have more or less affected the social changes of the people. People adapt to changes relevant to their environment. Society experiences socio-cultural changes and transforms itself in order to show its nature to remain as oneself in order to achieve its fundamental goals.

The tendency of local people to erect gonjong roofs on modern architectural buildings in West Sumatra is commendable. The existence of the gonjong roof on the modern architectural building cannot be separated from the participation of Mr. Harun Zain who served as Governor of West Sumatra in the era of the 70s. On his initiative, the Governor's office, government office, and all buildings located on main roads are required to display the face of traditional Minangkabau architecture through the gonjong roof. Even though the existence of the gonjong roof still exists, the '*alua jo patuik*' or suitability of something based on customary procedures and located in its place, namely between the gonjong roof and the building, even though its philosophical and symbolic meaning has not changed. As in Figs. 1 and 2 where '*alua jo patuik*' or suitability is not seen on these two buildings.

The definition of '*alua*' (groove) is in accordance with the procedures that apply in adat, while the notion of '*patuik*' (proper) is the appropriateness of something that lies in its place. Thus, the notion of '*alua jo patuik*' here is that although the efforts of architects or designers have maximized to transform the shape of the gonjong roof into a modern architectural building, it still has a weakness because the expression of the shape of the gonjong roof that occurs is not a form of modern architecture, this is due to the character of the gonjong roof which is basically very strong containing the character of traditional architecture. So the effect is more like a patch and like being forced as in Figs. 1 and 2.



Fig. 1 Government offices on Main street of Padang. Own Work, 2022



Fig. 2 Modern buildings with Gonjong. Own Work, 2022

As shown in Fig. 3, the building related to this research is the Grand Mosque of West Sumatra in Padang. Located on Jl. Khatib Sulaiman, Alai Parak Kopi, North Padang District, Padang City, West Sumatra, this architectural building was chosen because it represents a building that carries a neo-vernacular approach. The Grand Mosque of West Sumatra adapts the roof shape of the traditional Minangkabau '*Rumah Gadang*' and adapts Minangkabau carvings to beautify the facade of the building. The Grand Mosque of West Sumatra has just received the international award 'The Best Architectural Mosque' from The Abdullatif Al Fozan Award in Medina, Saudi Arabia, last December 2021.

3.3 Neo-vernacular Approach

Neo-vernacular architecture is a contemporary interpretation of vernacular building. Actually, it presents contemporary architectural interpolation, within vernacular environment, that was inspired by the elements of vernacular heritage and



Fig. 3 The Grand Mosque of West Sumatera. Source Wonderful Indonesia (2021)

expresses technological and aesthetic language of its time. Many architects reject the possibility of building in the spirit of the vernacular architecture, because mostly believe that it means the appliance of local traditional materials and forms. However, in defining and solving problems, one should go much deeper than just reaching visual context or 'scenery'. In fact, present (specific) context should be accepted and analyzed as 'a term that covers a much wider area of spiritual, historical, structural, program, spatial, and cultural issues' (Radović, 1979).

Neo-vernacular architecture is an approach to get architectural compositions by referring to the local environment that takes physical and non-physical elements into concepts and design criteria into contemporary forms (Sumalyo, 1997). Neo-vernacular architecture is an application of architectural elements that already exist, both physical (form, construction) and non-physical (concepts, philosophy, spatial planning) with the aim of preserving local elements that have been formed empirically by a tradition which later became a bit old or many have undergone renewal toward a more modern or advanced work without compromising local traditional values (Nauw & Rengkung, 2013).

It can be concluded that neo-vernacular architecture aims to preserve elements of local culture by seeking harmony between the building, nature, and the environment. Neo-vernacular architecture shows a modern form that still has the image of the local area, although the materials include modern materials, such as: glass and metal.

In general, the neo-vernacular architectural concepts applied to buildings are:

- Always use a ridge roof. The ridge roof covers the level of the wall to almost the ground so that more of the roof is likened to a protective and welcoming element than the wall which is described as a defensive element that symbolizes hostility.
- Brick (in this case is an element of local construction). The building is dominated by the use of nineteenth century bricks, namely the Victorian style which is a culture of western architecture.
- Restoring traditional forms that are environmentally friendly with more vertical proportions.
- Unity between open interiors through modern elements with open spaces outside the building.
- Strong, contrasting colors (Zikri, 2012).

From the characteristics and concepts above, it can be said that neo-vernacular architecture is not aimed at modern architecture or traditional architecture, but rather at both. The relationship between the two architectural forms above is clearly and precisely demonstrated by neo-vernacular through the trend of rehabilitation and reuse.

To get the new elements can be achieved by mixing local elements with modern technology, but still considering local elements, with the following characteristics:

- The forms that apply elements of culture, the environment including the local climate is expressed in architectural physical forms (layout plans, details, structures and ornaments).
- Not only physical elements are applied in a modern form, but also non-physical elements, namely: culture, mindset, belief, layout that refers to the macro cosmos, religion, and others into design concepts and criteria.
- The product in this building does not purely apply the principles of vernacular building but is a new creation (prioritizing on its visual appearance).

In exploring modern-vernacular buildings in Indonesia, there are 4 (four) approach models that must be considered regarding their form and meaning, so that there is no change to the paradigm as follows:

- The form and meaning are fixed.
- Fixed form with new meaning.
- A new form with a fixed meaning.
- New form and meaning.

To find out the comparison between vernacular and neo-vernacular architecture, it will be described in Table 1: (Susanto et al., 2014).

3.4 Neo-vernacular Approach Based on Ideological Aspect

The shape of the Grand Mosque of West Sumatra building was designed through an analysis of the cultural traditions and beliefs of the Minangkabau community, of course, taking into account the environment such as physical conditions including topography and climate. In terms of the ideological aspect, it is necessary to analyze the application of existing architectural elements which then undergoes renewal to a modern form without changing its meaning based on the beliefs of the people.

As is known, based on the belief of the people in West Sumatra, the gonjong roof is considered a symbol of respect for the buffalo who have won the buffalo fight. The horns of the buffalo are not only glorified because of the philosophy that has sacred values but also means as animals that help the survival of the people in the fields (symbolizing prosperity). That is where the philosophy and symbolic value of the gonjong roof which resembles a buffalo horn begins. In other words, the gonjong roof from a historical perspective comes from the

Table 1 Vernacular and neo-vernacular architecture comparison

Comparison	Vernacular	Neo-vernacular
Ideology	Formed by hereditary traditions but there are external influences, both physical and non-physical, forms of traditional architectural development	The application of architectural elements that already exist and then more or less undergo renewal toward a modern work
Principle	Evolved over time to reflect the environment, culture, and history of the area, where the architecture is located. The transformation from a homogeneous cultural situation to a more heterogeneous situation	Architecture that aims to preserve local elements that have been formed empirically by tradition and develop it into a modern style. Continuation of vernacular architecture
Design	Ornaments as a complement and a necessity, do not leave local values but can serve the activities of the community inside	The shape of the design is more modern

Source Tabel Perbandingan Arsitektur Tradisional, Vernakular dan Neo Vernakular, by Sonny S, Joko T, Yulianto S., 15 April 2014. (<http://arsitektur-neo-vernakular-fazil.blogspot.com/2014/04/arsitektur-neo-vernakular.html>)

efforts of the Minangkabau people to maintain their economy. The roof of the Grand Mosque of West Sumatra here has been transformed into a neo-vernacular architectural style. The exploration method for the renewal used is a new form with a fixed meaning, namely by applying the shape of the gonjong roof which is transformed into a more modern form.

The roof analysis of West Sumatra Grand Mosque with the neo-vernacular approach is given in Table 2. This is described through 3 aspects, namely the shape of the roof, ornaments and materials, and the color (Fig. 4, 5, 6, and 7).

4 Neo-vernacular Approach Based on Principle Aspect

The neo-vernacular approach to the Grand Mosque of West Sumatra is not only visible in the physical elements that are applied in a modern form, but also non-physical elements such as Minangkabau culture, mindsets, and beliefs of the community, and includes religion which is the basis of the concept and design criteria.

Table 2 Analysis of the roof of the Grand Mosque of West Sumatra with a neo-vernacular approach

Aspect	Analysis	Picture
Roof shape	The Grand Mosque of West Sumatra uses a roof that resembles a gonjong roof on a traditional Minangkabau building, namely Rumah Gadang (inspired by local elements) The gonjong roof has become a symbol that means respect and prosperity so that the meaning is still maintained by the architect of the Grand Mosque of West Sumatra even though the shape is no longer the same as the gonjong roof of Rumah Gadang/more modern (the application of local beliefs)	As in Fig. 4, the shape of the Mosque's roof looks like a gonjong
Ornaments and materials	On the roof, there is a typical Minangkabau motif carved ornament with a blend of wood and gypsum (a combination of traditional and modern materials) Typical Minangkabau ornaments are Pucuak Rabuang, Kaluak Paku, Jarek Takambang, and Siriah Gadang combined with Islamic calligraphy ornaments	The types of ornaments used at the Grand Mosque can be seen in Figs. 5 and 6
Color	The colors used on the sides of the roof are dominated by white and brown wood and a few gold accents, as is generally the color found on mosque roofs	The implementation of the use of color in the Grand Mosque can be seen in Fig. 7

Source Own Work, 2022



Fig. 4 Roof of Grand Mosque. *Source* Own Work, 2022

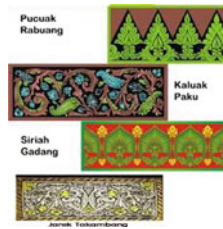


Fig. 5 Various kinds of typical Minang carved names. *Source* <https://www.piamanexplore.com/2022/08/ukiran-rumah-gadang-dan-warisan.html>, 2022



Fig. 6 Ornament of Grand Mosque. *Source* Own Work, 2022

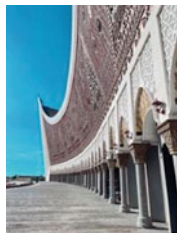


Fig. 7 Facade of the Grand Mosque of West Sumatera. *Source* Own Work, 2022

The design principle in the neo-vernacular approach is that it is required to always carry out creative and adaptive development to local architecture which is of course adapted to the values/functions of the current building, in this case the Grand Mosque of West Sumatra. The principle of

neo-vernacular architecture building aims to preserve local elements that have been empirically formed by tradition and develop them into a modern style.

As given in Table 3, it is described through 4 aspects, namely communicative, historical value/philosophy, urban context, and eclectic.

5 Neo-vernacular Approach Based on Design Aspect

The design aspect of the neo-vernacular approach always looks modern. The analysis of the design aspects of the roof shape with a neo-vernacular approach on the roof of the Grand Mosque of West Sumatra is described in Fig. 8.

As shown in Fig. 8, the modern buildings that show gonjong patches on the roof are widely available in West Sumatra, e.g., in Padang. This happened because at first, the design of this building was designed as a modern building, then a coercive regulation emerged from the local government to provide an additional element of a gonjong-shaped roof. As a result, there is disharmony in the form of design that occurs (not 'alua jo patuik'). Among these gonjong patches, e.g., can be seen in the building of Bank Indonesia in Padang, and the office of the Governor of West Sumatra.

However, the design on the roof of the Grand Mosque of West Sumatera has now been modified according to the times and technological developments while still paying attention to the environment and without changing its previous meaning to produce a new roof shape, no longer in the form of additional gonjong patches on modern buildings.

6 Conclusions

Some Minangkabau people think that the architectural image of vernacular/traditional Rumah Gadang is adequately represented by the sloping roof, even though the gonjong roof elements and the body of the building and the legs or underside are a single unit. The affixing of this roof makes the symbolic value of the gonjong roof slowly disappear and its meaning diminishes.

From the discussion above, the conclusions that can be drawn are as follows:

- The concept of a neo-vernacular architectural approach is applied to the design of the roof of the Grand Mosque of West Sumatra which is a modern building.
- The shape of the roof on modern buildings in West Sumatra has begun to change its shape by transforming

Table 3 Analysis of principle aspects on the roof of the Grand Mosque of West Sumatra with a neo-vernacular approach

Aspect	Analysis
Communicative	The roof of the Great Mosque of West Sumatra seems to convey the wisdom of the Prophet Muhammad SAW. The shape of the roof of the mosque was inspired by the expanse of the Prophet Muhammad's turban which was used to carry the Hajar Aswad when four tribes of the Quraysh tribe in Mecca disagreed about who had the right to move the Hajar Aswad to its original place after the renovation of the Kaaba. Prophet Muhammad SAW wisely decided to put the Hajar Aswad on a piece of cloth so that representatives from each tribe could carry it together by holding each corner of the cloth so that the communication of togetherness was felt
Historical value/philosophy	Rich in history has a philosophical meaning in the shape of the roof that resembles the gonjong roof
Urban context	Neo-vernacular architecture always has an urban context. The urban context on the architectural roof of the Grand Mosque of West Sumatra adapts to environmental conditions (climate) so that it is harmonious with the appearance of the building and looks more modern even though it uses some old forms
Eclectic	Merging local and modern forms so that new interpretations occur with old meanings to avoid culture shock

Source Own Work, 2022

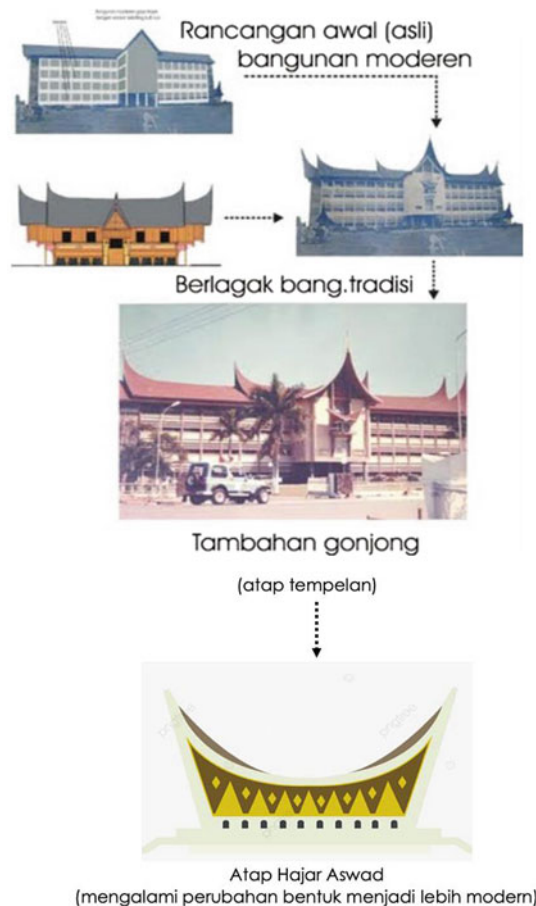


Fig. 8 Transformation of the roof design of the Grand Mosque of West Sumatra. Source <https://visualheritageblog.blogspot.com>, 2011

the gonjong roof, no longer in the form of a patch roof, of course, taking into account the conditions of the surrounding environment (climate), and has a uniqueness.

- There is a process of cultural acculturation that presents new forms by renewing old elements, resulting in new opinions and then being given old meanings to avoid culture shock.
- With this neo-vernacular approach, cultural elements and characteristics will be highlighted so that buildings in West Sumatra will be more contextual and appear 'alua jo patuik' (harmony).

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Neo-Vernacular Approach to Application of Roof Shape of Architectural Building in West Sumatera as A Conservation of Cultural Heritage

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Neo-Vernacular Approach to Application of Roof Shape of Architectural Building in West Sumatera as A Conservation of Cultural Heritage

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Abstract

Neo-Vernacular architecture is an architectural concept that emerged from the blend of local architecture and modern architecture. The application of the Neo-Vernacular architectural concept to buildings in West Sumatra aims to display the face of traditional Minangkabau architecture through the roof of the building. However, there is no evidence of '*alua jo patuik*' or conformity based on customary procedures that are in place. The purpose of this study is to analyze the identity and meaning of modern architectural buildings, especially on the roof in relation to architectural development. As support for cultural preservation, it is necessary to have a building design approach that pays attention to regional characteristics/regionalism while still paying attention to the environment, namely by designing local characters, in accordance with the environment and adapting to current conditions. This can be done with a Neo-Vernacular architectural approach that acculturates culture by presenting new forms by renewing old elements, so that new opinions occur and then are given old meanings to avoid culture shock. The method used is descriptive qualitative by analyzing aspects of several buildings based on the ideology, principles, and concepts of Neo-Vernacular design. The character of Neo-Vernacular architecture in one of the modern buildings in West Sumatra, the Great Mosque of West Sumatra in the city of Padang. Shown by the elements and characteristics of West Sumatra culture in order to preserve local elements that have been formed empirically by tradition and develop it into modern and environmentally friendly style, namely adjusting to environmental conditions (climate) so that it is harmonious with the appearance of the building and looks more modern even though it uses some old forms.

Keywords*Architecture; Neo-Vernacular; Roof; West Sumatra***1. Introduction**

Neo-vernacular architecture is an approach to obtaining architectural compositions by referring to the local environment that takes physical and non-physical elements (thought patterns, beliefs/views on space, culture, religion, and philosophical values) into concepts and design criteria into contemporary for: (Sumalyo, 1997). Neo-vernacular architecture has criteria that affect the building, namely the form using cultural and environmental elements (architectural physical forms), using cultural mindsets and beliefs (non-physical forms), the products produced in buildings produce new works and always use local forms and materials. or follow the environment.

Along with the times that occur in today's society is the emergence of a shift or change in architectural form in the cultural order. The process of cultural adaptation to 'foreign' culture has 2 (two) patterns. First, Convert Culture is a culture that is difficult to change or changes that take a long time. For example: cultural values, or customs that have been widely netted. Second, Overt Culture is the embodiment of what seems to be rapidly changing, such as: procedures and lifestyles, as well as the tools and objects used: (R. Linton in Koentjaraningrat, 1999)

As a result of the intersection of local culture and foreign culture, there was a process of acculturation of neo-vernacular designs. In the process of cultural acculturation for the architectural appearance there are 4 (four) kinds of patterns resulting from changes that occur in it, namely: (a) Fixed forms and meanings are architectural forms whose meanings remain the same and continue to repeat and adopt the old forms, although with some changes of building materials; (b) Fixed forms with new meanings, namely architectural forms that are given new meanings, but keep repeating and adopting old forms; (c) New forms with fixed meanings, namely architectural forms that present new forms by updating old elements, so that new interpretations occur and then give old meanings to avoid culture shock; (d) New forms and meanings (changed) are architectural forms that present new forms and meanings, because there is a total architectural change which means that the old culture will be abandoned or continue to be used only for ornaments/decorations.

Such rapid changes will certainly demand the local architectural treasury in Indonesia. Indirectly, local architecture which is better known as vernacular

architecture demands a more coordinated architectural approach and requires a more effective level of supervision, but the problem is the extent to which the form of vernacular architecture has meaning and identity which at the same time acts as a reflection of culture. In connection with this, it can be said that vernacular architecture is one of the identities or identities of a culture that has an important meaning.

The purpose of this study is to analyze the identity and meaning of modern architectural buildings, especially on the roof in relation to architectural development. As support for cultural preservation, it is necessary to have a building design approach that pays attention to regional characteristics/regionalism while still paying attention to the environment, namely by designing local characters, in accordance with the environment and adapting to current conditions.

One of the neo-vernacular approaches is applied to new and modern architectural buildings in West Sumatra. The most striking architectural changes in West Sumatra are the many modern office buildings that take the shape of a gonjong roof to show the character of West Sumatra. Architectural changes in West Sumatra have more or less influenced the social changes of the people. Social change is an inclusive concept that refers to changes in social phenomena at various levels of human life, starting from the level of individuals, interactions, institutions, communities, societies, cultures, civilizations to the global level: (Lauer, 1993). While Weilenman (1994:9), argues that social change is based on people's thinking and its parts require adjustment to the social and physical environment. People adapt to changes that are relevant to their environment. Society undergoes socio-cultural change and transforms itself in order to show its nature to remain as itself in order to achieve its fundamental goals.

The local community's tendency to erect gonjong roofs on modern architectural buildings in West Sumatra should be appreciated and imitated. The application of the gonjong roof shape in modern architectural buildings cannot be separated from the participation of Mr. Harun Zain who served as Governor of West Sumatra in the era of the 70s. On his initiative, the Governor's office as well as all buildings located on main roads are required to display the face of traditional Minangkabau architecture through the gonjong roof. Even though the existence of the gonjong roof still exists, the 'alua jo patuik' or the suitability of something based on customary procedures and located in its place, namely between the gonjong roof and the building, although its philosophical and symbolic meaning has not changed. The benefit of this paper is as a reference for a building design approach that pays

attention to regional characteristics/regionalism while still paying attention to the environment.

Bearing in mind all these possible attributes in this field, one main question is arised through this research: How is the application of neo-vernacular in architectural buildings in West Sumatra based on the criteria, characteristics, and concepts of cultural acculturation? Consideration of these questions can create opportunities to recognize and (re) value the identity and meaning of modern architectural buildings, especially the roof in relation to architectural development. Architectural identity should be dynamic so that in the end it is able to connect the red threads of local architecture with contemporary architecture along with the times. The history of the nation will be more easily understood by the next generation if it is shown with tangible evidence, one of which is local architectural buildings that have values and philosophies.

2. Research Methodology

In this study, preliminary observations and in-depth knowledge are needed regarding the philosophy and meaning of gonjong roofs in traditional Minangkabau houses and about gonjong roofs adapted on modern architectural buildings in West Sumatra. Basically, qualitative research is not here to find the truth because it is more about collecting theories in the field which then builds or compiles them into an analysis that is presented in its entirety.

The benefits of descriptive qualitative research are that it can describe a case in depth about people and the environment around the case based on real conditions in the field, can present more than one point of view and information because the research results are not assumed by the researcher at the beginning of the study, but are obtained from participants and analyzed by the researcher. The data and information obtained from the field are drawn on the meanings and concepts through descriptive explanations and without using numbers because they prioritize the process: (Semiawan, 2010)

2.1. Scope and purpose

Data analysis was carried out after the researchers made in-depth observations of the research object and based on the study of literature. After the data is collected, then the data is analyzed using data management techniques. The data analysis used

by the author in this study aims to answer the questions listed in the identification of the problem.

Qualitative primary data were obtained from informants: penghulu, mamak (head of heritage, indigenous peoples) using triangulation techniques (observations, interviews, and documentation related to the adaptation process of gonjong roofs which are widely used in modern buildings).

2.2. Analysis of data

Data analysis is one of the research activities in the form of the process of compiling and managing data in order to interpret the data that has been obtained. Data analysis is an activity after data from all data sources is collected. Activities in data analysis are grouping data based on variables, presenting data, and conducting analysis to answer the formulation of the problem.

Data analysis is used to process data into information, the data will become easier to understand and interpret. The data to be analyzed is research data from field research and literature, then analyzed by the author to draw conclusions. In the data analysis stage, the researcher conducts discussions with student members until conclusions are drawn and reports are written to the process of making outputs in which students are also involved.

Data analysis is based on a comparison between vernacular and neo-vernacular buildings using a normative approach through traditional community leaders, informants, and related literature. In addition, a cultural approach is used to see the propriety that is formed as a result of the application of Gonjong roof on modern architectural buildings in West Sumatra as an effort cultural heritage preservation.

3. Result and Discussion

3.1. Gonjong Roof in West Sumatera

The shape of the roof of Rumah Gadang which is also like a buffalo horn is often associated with Tambo Alam Minangkabau. Tambo Alam Minangkabau is a story about the victory of the Minang people in the event of a buffalo fight against the Javanese. According to the saga, the gonjong roof is a transitional form of buffalo horn. Buffalo which in the Padang language is called 'Kabau; is also a philosophy of the Minangkabau word. Buffalo animals are not only glorified because of

philosophy but also used as an entertainment known as fighting kabau. That's where the philosophy of the gonjong roof begins.

As a symbol of respect for the buffalo who had won the kabau fighting competition, the Minangkabau people adopted the form of buffalo horns on the roof of the Rumah Gadang building, so that until now the gonjong roof has the meaning of respect. The horns of the buffalo are not only glorified because of the philosophy that has a sacred value but also means as an animal that helps the survival of the people in the fields (symbolizing prosperity). That's where the philosophy and symbolic value of the gonjong roof which resembles a buffalo horn begins. In other words, the gonjong roof from a historical perspective comes from the efforts of the Minangkabau people to maintain their economy.

The gonjong roof is the highest part of each end of the roof facing upwards, and is the end of the turang wrapped with tin. Symbolic value is a sign that is manifested as a visual form for a certain meaning that is abstract but communicative for certain people. In the language of philosophy, symbols or signs are usually also known as semiotics which is defined as a general philosophical theory that deals with the production of signs and symbols as part of a code system used to communicate information: (Navis, 1984)

The high roof imaged the human being as a human who controls nature but harmonizes himself with nature. This hilly and mountainous nature forms a balanced and harmonious composition with the shape of the building and in accordance with the Minangkabau people's view of life, '*alam takambang jadi guru*'. In addition to following the philosophy and way of life of the Minangkabau people, the roof is also made gonjong where the higher you go the sharper it is with the intention that the water slides easily. This has something to do with the natural environment where the natural factor of Bukit Barisan is that it often gets rain so that the water on the roof will easily slide down.

3.2. Building Roof in West Sumatra

The architectural building of the '*Rumah Bagonjong*' was built according to aesthetic requirements, meaning and function in accordance with nature or containing the values of unity, harmony, and balance in its cohesive wholeness. Along with the development of the times, the gonjong roof on Rumah Bagonjong is also widely adopted by modern buildings that are used to characterize vernacular

buildings. In West Sumatra, the most striking is the number of modern office buildings that take the gonjong roof to show the character of West Sumatra.

The history of architecture shows architecture developing and changing gradually. According to Gartiwa (2011: 96), vernacular architecture is part of the development of architecture as a whole, part of history, the issue is whether the development of architecture from traditional to modern takes place in an evolutionary (slow) way, revolution (fast), or a jump that results in a break developmental continuity chain.

Architectural changes in West Sumatra have more or less affected the social changes of the people. People adapt to changes relevant to their environment. Society experiences socio-cultural changes and transforms itself in order to show its nature to remain as oneself in order to achieve its fundamental goals.

The tendency of local people to erect gonjong roofs on modern architectural buildings in West Sumatra is commendable. The existence of the gonjong roof on the modern architectural building cannot be separated from the participation of Mr. Harun Zain who served as Governor of West Sumatra in the era of the 70s. On his initiative, the Governor's office, government office and all buildings located on main roads are required to display the face of traditional Minangkabau architecture through the gonjong roof. Even though the existence of the gonjong roof still exists, the '*alua jo patuik*' or suitability of something based on customary procedures and located in its place, namely between the gonjong roof and the building, even though its philosophical and symbolic meaning has not changed. As in Figure 1 and Figure 2 where '*alua jo patuik*' or suitability is not seen on these two buildings.



Figure 1. Government Offices on Main Street of Padang
Own Work, 2022



Figure 2. Modern Buildings with Gonjong
Own Work, 2022



Figure 3. The Grand Mosque of West Sumatera
Source: Wonderful Indonesia, 2021

The definition of '*alua*' (groove) is in accordance with the procedures that apply in adat, while the notion of '*patuik*' (proper) is the appropriateness of something that lies in its place. Thus, the notion of '*alua jo patuik*' here is that although the efforts of architects or designers have maximized to transform the shape of the gonjong roof into a modern architectural building, it still has a weakness because the expression of the shape of the gonjong roof that occurs is not a form of modern architecture, this is due to the character of the gonjong roof is basically very strong containing the character of traditional architecture. So the effect is more like a patch and like being forced as in Figure 1 and Figure 2.

As shown in Figure 3, the building related to this research is the Grand Mosque of West Sumatra in Padang. Located on Jl. Khatib Sulaiman, Alai Parak Kopi, North Padang District, Padang City, West Sumatra, this architectural building was chosen because it represents a building that carries a neo-vernacular approach. The Grand Mosque of West Sumatra adapts the roof shape of the traditional Minangkabau 'Rumah Gadang' and adapts Minangkabau carvings to beautify the facade of the building. The Grand Mosque of West Sumatra has just received the international award "The Best Architectural Mosque" from The Abdullatif Al Fozan Award in Medina, Saudi Arabia, last December 2021.

3.3. Neo-vernacular Approach

Neo-vernacular architecture is a contemporary interpretation of vernacular building. Actually, it presents contemporary architectural interpolation, within vernacular environment, that was inspired by the elements of vernacular heritage and expresses technological and aesthetic language of its time. Many architects reject the

possibility of building in the spirit of the vernacular architecture, because mostly believe that it means the appliance of local traditional materials and forms. However, in defining and solving problems one should go much deeper than just reaching visual context or “scenery”. In fact, present (specific) context should be accepted and analyzed as “a term that covers a much wider area of spiritual, historical, structural, program, spatial and cultural issues”: (Radović, 1979).

Neo-vernacular architecture is an approach to get architectural compositions by referring to the local environment that takes physical and non-physical elements into concepts and design criteria into contemporary forms: (Sumalyo, 1997). Neo-vernacular architecture is an application of architectural elements that already exist, both physical (form, construction) and non-physical (concepts, philosophy, spatial planning) with the aim of preserving local elements that have been formed empirically by a tradition which later became a bit old, or many have undergone renewal towards a more modern or advanced work without compromising local traditional values: (Nauw & Rengkung, 2013).

It can be concluded that neo-vernacular architecture aims to preserve elements of local culture by seeking harmony between the building, nature, and the environment. Neo-vernacular architecture shows a modern form that still has the image of the local area, although the materials include modern materials, such as: glass and metal.

In general, the neo-vernacular architectural concepts applied to buildings are:

- ☞ Always use a ridge roof. The ridge roof covers the level of the wall to almost the ground so that more of the roof is likened to a protective and welcoming element than the wall which is described as a defensive element that symbolizes hostility.
- ☞ Brick (in this case is an element of local construction). The building is dominated by the use of 19th century bricks, namely the Victorian style which is a culture of western architecture.
- ☞ Restoring traditional forms that are environmentally friendly with more vertical proportions.
- ☞ Unity between open interiors through modern elements with open spaces outside the building.
- ☞ Strong, contrasting colors: (Zikri, 2012)

From the characteristics and concepts above, it can be said that neo-vernacular architecture is not aimed at modern architecture or traditional architecture, but rather at both. The relationship between the two architectural forms above is clearly and precisely demonstrated by neo-vernacular through the trend of rehabilitation and reuse.

To get the new elements can be achieved by mixing local elements with modern technology, but still considering local elements, with the following characteristics:

- ❧ The forms that apply elements of culture, the environment including the local climate are expressed in architectural physical forms (layout plans, details, structures and ornaments).
- ❧ Not only physical elements are applied in a modern form, but also non-physical elements, namely: culture, mindset, belief, layout that refers to the macro cosmos, religion and others into design concepts and criteria.
- ❧ The product in this building does not purely apply the principles of vernacular building but is a new creation (priorizing on its visual appearance)

In exploring modern-vernacular buildings in Indonesia, there are 4 (four) approach models that must be considered regarding their form and meaning, so that there is no change to the paradigm as follows:

- ❧ The form and meaning are fixed.
- ❧ Fixed form with new meaning.
- ❧ A new form with a fixed meaning.
- ❧ New form and meaning.

To find out the comparison between vernacular and neo-vernacular architecture, it will be described in the following table 1: (Sonny Susanto, Joko Triyono, Yulianto Sumalyo, 2014).

Table 1. Vernacular and Neo-Vernacular Architecture Comparison

Comparison	Vernacular	Neo-Vernacular
Ideology	Formed by hereditary traditions but there are external influences, both physical and non-physical,	The application of architectural elements that already exist and

	forms of traditional architectural development.	then more or less undergo renewal towards a modern work.
Principle	Evolved over time to reflect the environment, culture and history of the area where the architecture is located. The transformation from a homogeneous cultural situation to a more heterogeneous situation.	Architecture that aims to preserve local elements that have been formed empirically by tradition and develop it into a modern style. Continuation of vernacular architecture
Design	Ornaments as a complement and a necessity, do not leave local values but can serve the activities of the community inside.	The shape of the design is more modern.

Source: Tabel Perbandingan Arsitektur Tradisional, Vernakular dan Neo Vernakular, by Sonny S, Joko T, Yulianto S., 15 April 2014. (<http://arsitektur-neo-vernakular-fazil.blogspot.com/2014/04/arsitektur-neo-vernakular.html>)

3.4. Neo-Vernacular Approach Based on Ideological Aspect

The shape of the Grand Mosque of West Sumatra building was designed through an analysis of the cultural traditions and beliefs of the Minangkabau community, of course, taking into account the environment such as physical conditions including topography and climate. In terms of the ideological aspect, it is necessary to analyze the application of existing architectural elements which then undergo renewal to a modern form without changing its meaning based on the beliefs of the people.

As is known, based on the belief of the people in West Sumatra, the gonjong roof is considered a symbol of respect for the buffalo who have won the buffalo fight. The horns of the buffalo are not only glorified because of the philosophy that has sacred values but also means as animals that help the survival of the people in the fields (symbolizing prosperity). That's where the philosophy and symbolic value of the gonjong roof which resembles a buffalo horn begins. In other words, the gonjong roof from a historical perspective comes from the efforts of the Minangkabau people

to maintain their economy. The roof of the Grand Mosque of West Sumatra here has been transformed into a neo-vernacular architectural style. The exploration method for the renewal used is a new form with a fixed meaning, namely by applying the shape of the gonjong roof which is transformed into a more modern form.

Table 2. Analysis of the Roof of the Grand Mosque of West Sumatra with a Neo-Vernacular Approach

Aspect	Analysis	Picture
Roof Shape	<p>The Grand Mosque of West Sumatra uses a roof that resembles a gonjong roof on a traditional Minangkabau building, namely Rumah Gadang (inspired by local elements).</p> <p>The gonjong roof has become a symbol that means respect and prosperity so that the meaning is still maintained by the architect of the Grand Mosque of West Sumatra even though the shape is no longer the same as the gonjong roof of Rumah Gadang / more modern (the application of local beliefs).</p>	As in Fig 4, the shape of the Mosque's roof looks like a gonjong.
Ornaments and Materials	<p>On the roof there is a typical Minangkabau motif carved ornament with a blend of wood and gypsum (a combination of traditional and modern materials).</p> <p>Typical Minangkabau ornaments are Pucuak Rabuang, Kaluak Paku, Jarek Takambang, and Siriah Gadang combined with Islamic calligraphy ornaments.</p>	The types of ornaments used at the Grand Mosque can be seen in Fig 5 and Fig 6.
Color	The colors used on the sides of the roof are dominated by white and brown wood and a few gold accents, as is generally the color found on mosque roofs.	The implementation of the use of color in the Grand Mosque can be seen in Fig 7.

Source: Own Work, 2022

Fig 4.

Roof of Grand Mosque
Source: Own Work, 2022



Fig 5.
Various Kinds of Typical Minang Carved Names
Source: <https://www.piamanexplore.com/2022/08/ukiran-rumah-gadang-dan-warisan.html>, 2022

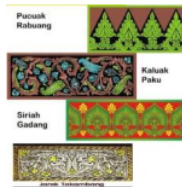


Fig 6.
Ornament of Grand Mosque
Source: Own Work, 2022



Fig 7.
Facade of the Grand Mosque of West Sumatera
Source: Own Work, 2022



4. Neo-vernacular Approach Based on Principle Aspect

The neo-vernacular approach to the Grand Mosque of West Sumatra is not only visible in the physical elements that are applied in a modern form, but also non-physical elements such as Minangkabau culture, mindsets and beliefs of the community, and includes religion which is the basis of the concept and design criteria.

The design principle in the neo-vernacular approach is that it is required to always carry out creative and adaptive development to local architecture which is of course adapted to the values / functions of the current building, in this case the Grand Mosque of West Sumatra. The principle of neo-vernacular architecture building aims to preserve local elements that have been empirically formed by tradition and develop them into a modern style.

Table 3. Analysis of Principle Aspects on the Roof of the Grand Mosque of West Sumatra with a Neo-Vernacular Approach

Aspect	Analysis
Communicative	The roof of the Great Mosque of West Sumatra seems to convey the wisdom of the Prophet Muhammad SAW. The shape of the roof of the mosque was inspired by the expanse of the Prophet Muhammad's turban which was used to carry the Hajar Aswad when four tribes of the Quraysh tribe in Mecca disagreed about who had the right to move the Hajar Aswad to its original place after the renovation of the Kaaba. Prophet Muhammad SAW wisely decided to put the Hajar Aswad on a piece of cloth so that representatives from each tribe could carry it together by holding each corner of the cloth so that the communication of togetherness was felt.
Historical Value/ Philosophy	Rich in history. Has a philosophical meaning in the shape of the roof that resembles the gonjong roof.
Urban Context	Neo-vernacular architecture always has an urban context. The urban context on the architectural roof of the Grand Mosque of West Sumatra adapts to environmental conditions (climate) so that it is harmonious with the appearance of the building and looks more modern even though it uses some old forms.

Eclectic	Merging local and modern forms so that new interpretations occur with old meanings to avoid culture shock.
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Source: Own Work, 2022

As shown in Table 3, it's described through 4 aspects, namely communicative, historical value/philosophy, urban context, and eclectic.

5. Neo-vernacular Approach Based on Design Aspect

The design aspect of the neo-vernacular approach always looks modern. The analysis of the design aspects of the roof shape with a neo-vernacular approach on the roof of the Grand Mosque of West Sumatra is described in the following figure:

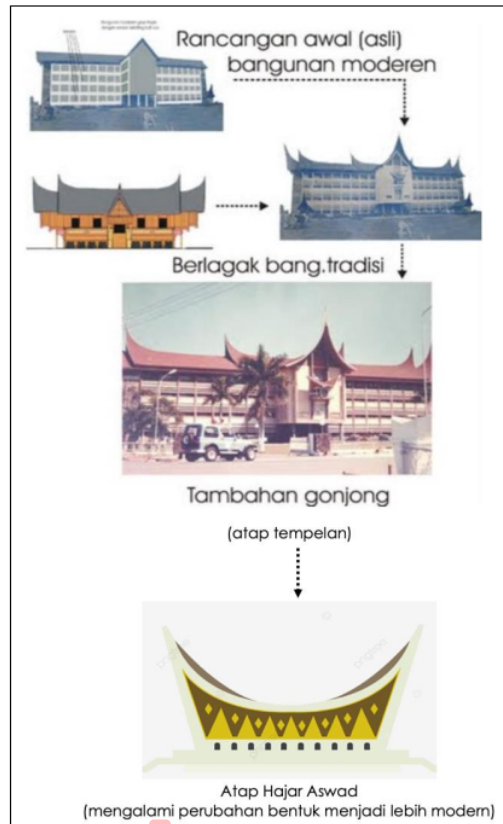


Figure 8. Transformation of the roof design of the Grand Mosque of West Sumatra
Source: <https://visualheritageblog.blogspot.com>, 2011

As shown in Figure 4, the modern buildings that show gonjong patches on the roof are widely available in West Sumatra, for example in Padang. This happened because at first the design of this building was designed as a modern building, then a coercive regulation emerged from the local government to provide an additional element of a gonjong-shaped roof. As a result, there is disharmony in the form of design that occurs (not 'alua jo patuik'). Among these gonjong

patches, for example, can be seen in the building of Bank Indonesia in Padang, and the office of the Governor of West Sumatra.

However, the design on the roof of the Grand Mosque of West Sumatra has now been modified according to the times and technological developments while still paying attention to the environment and without changing its previous meaning to produce a new roof shape, no longer in the form of additional gonjong patches on modern buildings.

6. Conclusions

Some Minangkabau people think that the architectural image of vernacular/traditional Rumah Gadang is adequately represented by the sloping roof, even though the gonjong roof elements and the body of the building and the legs or underside are a single unit. The affixing of this roof makes the symbolic value of the gonjong roof slowly disappear and its meaning diminishes.

From the discussion above, the conclusions that can be drawn are as follows:

- ❧ The concept of a neo-vernacular architectural approach is applied to the design of the roof of the Grand Mosque of West Sumatra which is a modern building.
- ❧ The shape of the roof on modern buildings in West Sumatra has begun to change its shape by transforming the gonjong roof, no longer in the form of a patch roof, of course, taking into account the conditions of the surrounding environment (climate), and has a uniqueness.
- ❧ There is a process of cultural acculturation that presents new forms by renewing old elements, resulting in new opinions and then being given old meanings to avoid culture shock.
- ❧ With this neo-vernacular approach, cultural elements and characteristics will be highlighted so that buildings in West Sumatra will be more contextual and appear 'alua jo patuik' (harmony).

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