

TOPIC: 'WESTERN' ARCHITECTURAL INFLUENCE ON VERNACULAR ARCHITECTURAL PRACTICE

A Case Study of the N'yindrou People, Kali Island, Manus, Papua New Guinea

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Abstract: This paper reports on a study that investigates the Western influences on Melanesian Vernacular Architecture. It is aimed at the Melanesian Architectural context and outside Western Influences that contribute to the changes that take place in traditional Melanesian vernacular setting within the field of architecture and the building practice. It is a case study based on a field trip conducted by a team of four volunteers and the author through interviews and observations, on the N'yindrou group of people particularly the people of Kali Island from the west coast of Manus, Papua New Guinea.

The case study is divided into two parts, the physical and social aspects that outline the trend and changes that have taken place and the likely effect it would have on these group of people. Changes as studied were taken from a sample of four different houses in the setting in relation to the other buildings on site and the nearby district. The samples were studied over a period of one week in contrast to site observations conduction over more than two years. The complete data collected was analyzed and then tabulated to identify the different use of space and photos were taken to show the materials used in the building components.

The samples as analyzed show the different user spaces and the forms of the buildings. Most of the findings are based entirely on this study and are linked to the issues and changes that took place during the history of Manus in its transition of change. The major outcome of the study is the tabular analysis and the graphical representations that show the space usage and types of forms and materials used in design. Understanding of the type of material use and the better education of their effects is needed to reduce the trend of change as well as provide other options in building construction techniques.

Social spaces in this study, referred to as basically masculine and feminine spaces are not visual but do exist and are very influential in relation to the cultural beliefs and daily tactics in the usage of the given limited indigenous environment. These habitual spaces are vitally important to the user hence; designers in approaching spatial design in a Melanesian dwelling setting particularly in 'Per formative' Architectural study it should embrace such indigenous knowledge in order to respond appropriately and responsively.

From this paper, the study demonstrates that Kali Island on Manus Island has evidence of Western architectural influence on Melanesian Vernacular Architectural practice.

Key words: Vernacular, western influence, indigenous, Melanesian, spatial design, domestic, routine, roles, masculine, feminine, architecture, per formative.

Introduction

Architecture is both art and science in nature and includes how man combines the two together within the natural

environment. The science of architecture deals with the natural impacts that acts as either as an internal or external force. From this study, the physical and social aspects of architecture have been taken into detail to analyze the impacts they have on a particular group of people in the Melanesian region namely, the people from the N'yindrou group of Kali in the Manus province, Papua New Guinea. The paper is specific to the physical and social changes in architecture that are evident within the N'yindrou community and brings into perspective what has been developed over time that has become a potential "threat" to the vernacular building practices.

Throughout the process of transitional change in the life of the nation of Papua New Guinea (PNG) since its first settlement as a Melanesian society, it has changed dramatically and so tries to adapt to these changes over time. These changes have however contributed to the architecture and the building practice respectively. Most of these changes have come from the western world in relation to the "Western Invasion" of this country during the colonial era.

Following these changes is the trend that our Melanesian Architecture is also adapting to these lifestyles and in doing so, has brought change to the form of the local vernacular setting including the architectural and building practice respectively. Most of these influences as we witness is the urban-rural drift where the rural areas are trying to adapt to the urban setting standards. These influences are having dramatic impacts on both the physical and social aspects of Melanesian Architecture. For this study the subject is narrowed into the rural setting where some of these changes are addressed and taken into account.



Figure 1. Map showing Papua New Guinea in the Oceania Region

The first contact from the Western world and the spatial systematic changes into rural PNG – (Manus)

According Anthropological studies and social scientist like Margaret Mead (1960) and Lisa Peattie (1963) of New York, the development that we have been going through has brought us into a lot of change. These changes include the way our local people use the spatial areas in and around the building for example. Most of these occurred after the invasion of missionaries into the local setting of this nation.

One of these setting includes the Pere Village of the south-coast of Manus that was settled when mission was introduced into this country. This is a good example of change in terms of influence since it is evident in the lives of these group people. Before the arrival of missionaries into this society, the original natives, “Titans” lived over the seawaters for the purpose of security and the fact that they were seafarers plying the Bismarck waters. They were skilled on sea going vessels and lived most of their lives at sea after trading with coastal people of the mainland of Manus for food and water. Their lifestyles changed just after Missionaries settled on the south coast of Manus and brought what is late known as “civilization” into their “primitive” culture.



Figure 2. Map showing the Manus Island Province, Papua New Guinea

The significance of the Architectural outcome

Architecture in Manus has adapted to these noted changes due to the Western invasion into the traditional setting. The building practice and architecture generally followed the trend into era of “modernization”. Many as seen now from native culture have moved from living on the sea going vessels and now settling along the coast the most of the islands to the south of Manus. The primitive people have now left their home on the sea and are now using the land as part of their spatial environment to which they used to use the canoe as a common meeting, social and private place for everyday living. This particular change is similar to the one studied and proves the fact that there is change happening that is affecting our Melanesian physical and social life style architecturally.

Review of similar outcomes

This study of change is not limited and is not the only one has been undertaken so far. There have been others that other researchers have undertaken from other parts of the nation of Papua New Guinea and abroad. One of the documented literatures is that of “Papua New Guinea Architecture Transition” by Karo ⁴ (1988) who defined his context of study to the vernacular of the Papua people namely the Gavone Village, Marshall Lagoon of the Central Province of Papua

New Guinea. This author tried to express the ideal setting and its influences to the existing environment. The author then made references to the building details and the trend from which most of the ideas have been derived and to which they no longer are in use as a result of these changes. Karo later made his analysis basing it on the importance of the dying vernacular and made reference to preserve or review the transition process.

Baloiloi¹ (1989) discussed in his paper about his interest and looked mainly at the vernacular architecture of Dobu Society in the Milne Bay Province of Papua New Guinea. Baloiloi defined the group studied and their origins, their first contact and the architectural layout and details of their society. The social and physical characters of the people are also discussed as well as their movements to other places and neighboring villages that influence the kind of people that live within societies.

From these perspectives, this study took the same trend but looked into the details of the village setting up and related it to the activities that took place with the influences that disturb the way people utilize their environment architecturally including the local building practices. This study is the first that has been conducted on this locality.

Materials and Methods

This study was conducted in two phase which were a series of personal informal interview with key village leaders within a span of one week and an ongoing site observation conducted in intervals on site for up to two to three years. The team of volunteers for the one week site interview was divided into the four village clans and undertook interviews as well as direct observations that included sketches and interactions with the villagers. These interviews and observations were analyzed as either Physical or Social Architectural data.

Results

PART A: Physical Architecture

The Context of Study

The Village background and details of the contextual set up in relation to the global picture of the main urban growth center of Manus Society.

From the study pursued, the island of Kali is along the west coast of Manus which is about four to five hours of travel by boat from the main district center of Manus, the Lorengau town. The people from this part of the area are rarely seen in Lorengau town due to the distance, and cost of transportation to and from the islands, which is very expensive for the locals to afford.

Most of the people of this part of the area have gone to other part of the province and the nation of PNG in search for jobs, education and inter-married in the neighboring villages. These have left only a handful of people on the island that have tried to fully utilized what has been given to them within the surrounding environment.

Societies Profile

Similar to any other villages in Manus, life remains essentially traditional and agricultural in nature tied closely to careful utilization of the natural environment. The daily chores evolve around food production, gardening fishing and sago processing where there is communal and extended family involvement.

Despite the rapid changes in the way of life as in the parts of the province and the nation as whole, traditionally customary ceremonies and exchange obligations known as “custom work” still occupy the village way of life. These ways of approaching the private environment is similar throughout the whole island of Manus.

Generally the use of space and the building distances are carefully arranged according to the number of clan groups and the families involved in taking lead within the clan groups. Spaces and their function needed to host these village activities are determined by the size needed to host this event or occasions. Most of the space distribution and arrangement is carefully outlined in the narrowed analysis as to be discussed later in this paper.

The N'yindrou Society

The term “N'yindrou” comes from the native language that is used to identify and distinguish this particular group from the rest of Manus people. These groups of people are particularly found along the west-coast of Manus Island. The villages that make up the N'yindrou group include the following:

1. N'yadah
2. Jowan one (1) & two (2)
3. Lessau
4. Harrengan
5. Nihon
6. Kali
7. Salien
8. Bipi

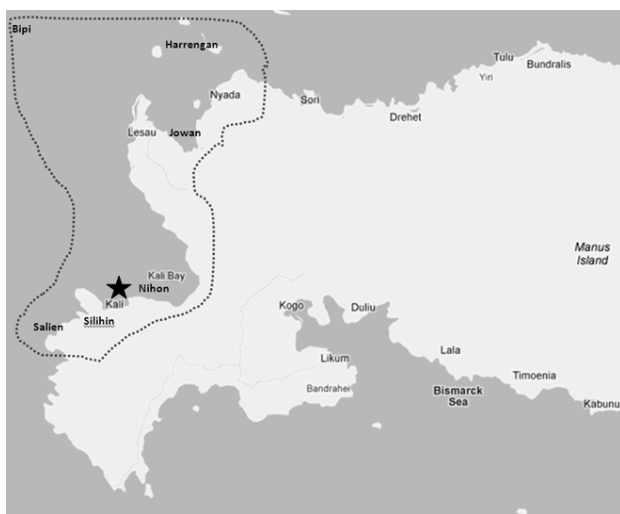


Figure 3. Map showing the N'yindrou society and the area of study

According to the interview on site the N'yindrou people don't come from the same line of generational inheritance but speak the similar type of language. The people differ slightly with the dialect but the languages can be clearly understood for the purpose of communication.

The only modes of transport from village to village are either outrigger canoes, hulled canoes or by walking around the coast and the Kali Bay. Motor vessels are today introduced into this setting to make life efficient for the villages to access gardens, sea water and government services available with smaller amount of time.

The Case Study – Kali Island

Demography

Demography is the study of the size, territorial distribution, and the composition of population changes therein, and components of such changes in which may be identified as vitality, mortality, territorial movement or migration and the social mobility meaning change of status – (Hauser & Duncan 19:2). Demography can also be the scientific study of human population, primarily with respect to their size, structure, and development. In the essence of this understanding is the reason why these groups of people have changed over the past years and how it is related to the growth rather and the total population at the current situation. The understanding of this relationship is being submerged into the island into the small island over the past two to three years according to the statistics given below.

These are four different clans in the Kali Island community that the people are distributed accordingly. These clans have own meaning and differ from each other. The names of the clans as studied and analyzed are:

1. Bogodon
2. Belen
3. Marai
4. Bakok

Bogodon in the N'yindrou language means the color “Black” and is named after the particular group to differentiate them from the other clans groups.

The *Belen* clan comes from the same inheritance and they settle within the given boundary divided into the four different clans. The word literally means the color “White”, the N'yindrou Language, which refers to the particular group of people that make up the clan.

For the *Marai* group, it is believed that they came from the far-west side of the whole island of Manus to settle the island. This was due to the long time primitive trade that was being pursued in the past. Similar to the Bogodon clan is the *Bakok* group of people who make up the remaining clan group that settled at the opposite end of the island toward the north end. This group of people is believed to have taken different route compared to the others but managed to fit well into the other groups that settled the small island.

The clans above are distributed within the island and make up the population of the island as a whole. There is an average of five family members in a nuclear and a clan is made up of the immediate family members. Since the setting of the clan as in the arrangement of houses is done in such a way that all the brothers and sisters in the particular clan have a share of material physical inheritance that is rightfully owned by the clan group. According to the 1999 village census statistics from the local archive the total population on the island was 287, to which there were 146 males and 141 females during that time. During the time this study was conducted it is believed that the overall population is just above 300 on the islands itself but the ratio of man to woman remained the same.

The Dwelling Setting

The island of Kali is about 160 meters long and 120 meters wide estimated from the foot counts done site. This data is the dimensions of the useful alone without considering the mangroves that occupy the unused land. It is a sandy coral

atoll surrounded mainly by mangroves at the two ends of the island to the north and south respectively.

The island is then divided into four different sectors that the clans occupy. A small basketball court occupies the central part of the island and an open gathering area surrounded by the village houses. There is a Catholic Church, which is the only religion located to the south end of the island while one of the only two 'Haus Boi' right opposite to the northern end of the island.

The villagers have access to only two retail stores that are located at both ends of the island. For the government services, a Health center is stationed at Lessau about an hour boat to the east of the island. The other government services like forestry, commerce and agriculture are established on the mainland coast, known as the Silihin district located to the west of the island that serves the entire people group from the particular ethnic group.

Change in this part of the province of Manus is very far as it has long been modernized and civilized under the influence of American & Australian colonies as well as missionaries in the 1940's.

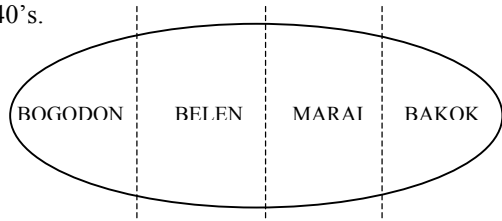


Figure 4. Distribution of Clan spaces on the study locale

Village in Detail

The village is an island surrounded with buildings both of the western and the traditional architecture. There is a mixture of houses that make up the whole village consisting of residential buildings, separate toilet blocks and a public meeting building. From about 80 different houses, 5% of the total was observed over a period of one week.

Out of the number of houses in the village 15% of them are completely permanent 11% are semi-permanent while 77% are traditional.

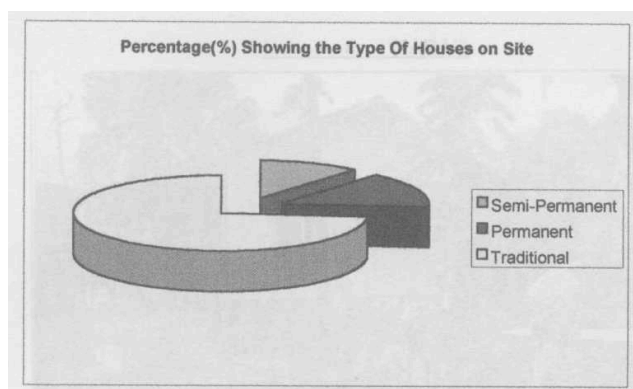


Figure 5. Graph showing percentage of house on study locale

The category of buildings that make up a complete Residential house fall in as the sleeping house, the kitchen, the firewood house and the toilet which also is a separate building. Most the houses are arranged in this order. All of these spaces have different functions. There were four different buildings that were looked at, observed and studied

to come with the analysis of activities that take place in them. The residences selected were from each clan and compared to each other for the developed changes over the valued cultural influences.

Houses in Actual Setting

The study looked into the actual setting of the village addressing the physical aspects of the site. This relates to the site setting up and the relevance it has towards, both traditional and the western outcomes of its surroundings.

The actual setting of the sample houses studied was taken from the four different clans seen from the Map 01 below to find out about the general setting as well as the intimate domestic dwellings and their relationships.

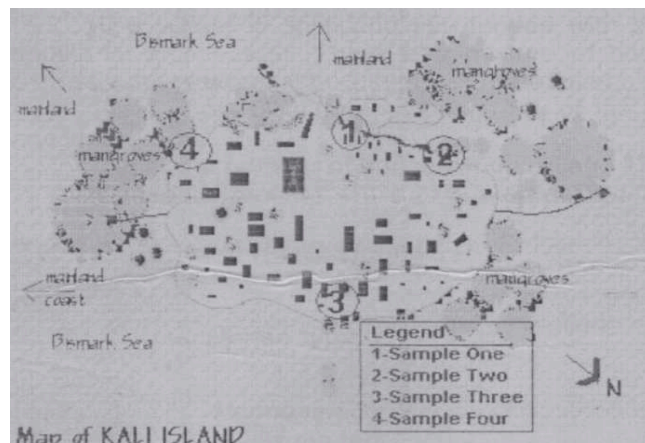


Figure 6. Map of Kali Island showing sample study areas

Sample of study – House Two (2)

From the study of the four different building samples, sample two (2) was selected as the study sample in terms of the physical structure of the building.

Material Usage

The foundation is a specific traditional boulder that is found at sea, left to dry and then it is used to lift the house. A six-inch nail is driven into the boulder and is used to fasten the post to the boulder, braced before the other members are laid on to complete the erection of the building.

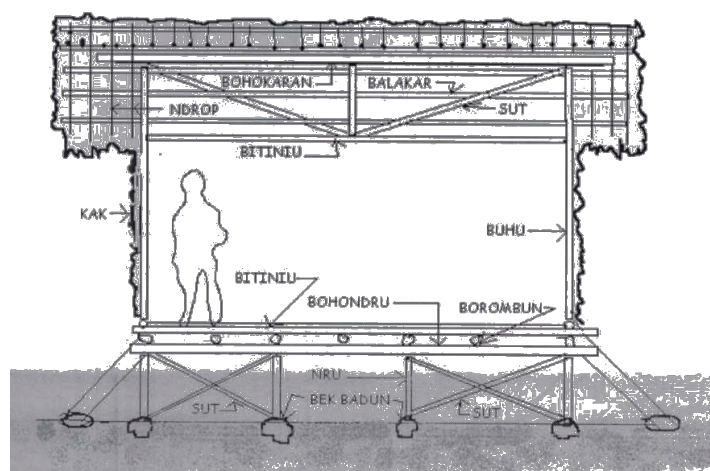


Figure 7. Section of Main Living Room with details in vernacular terms – House Two (Bakok)

The post or column is circular in nature and is brought from the mainland coast. All the other members of the building are entirely natural except for the fasteners seen from figures 7 and 8.

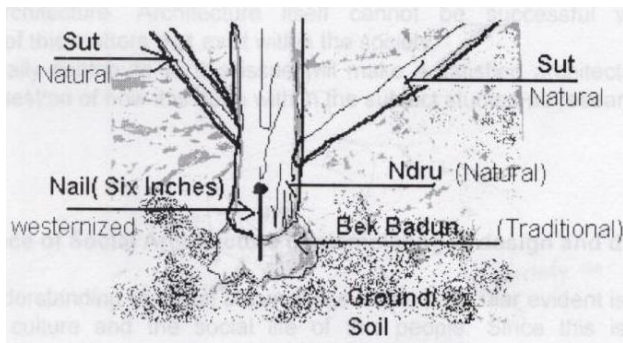


Figure 8. Building column (post) details in vernacular terms –House Two (Bakok)

Building Typology

The buildings that make up a complete residence consist of:

1. 'Haus Silip' – Main House: where sleeping, eating and communal is done most of the time.
2. 'Haus Kuk' – Kitchen: Cooking and food storage
3. 'Paiawut Haus' – Firewood shed: to store firewood and tools for fishing and sago processing
4. 'Haus blo Papa na Mama' (optional) – Older peoples' house: The parents as they grow old move into a separate building for themselves.

PART B: Social Architecture

Definition of Social Architecture

The type of relationship that man has with the surrounding and the inhabitants of his society, is known as the social setting or the social environment that exist within the setting of the given area. Social living refers to how individuals react to each other and the general public with a given community.

This sort of relationships differs from place to place and cannot be used to term every act that a particular community has compared with the other. Every cultural group has its history, its origins, developments, migrations, conflicts and adjustments. There was a time when the group did not exist, or least not in particular a habitat which it is living at present. Few of the members may remember its origins and may have lost it in the long developments of social forces that distinguish them from others. Due to this many changes has affected the style of architecture. Through this process many original forms and techniques of buildings have long vanished and are still in the process of being lost.

From this perspective it is looked at the realm of architecture and the activities related to architecture. Architecture itself cannot be successful without careful consideration of this matters that exist within society. To socially contribute to this issue will make a satisfied architecture and in this realm is the question of how it is done within the subject of studied as researched.

The Dwelling Setting

The understanding of social occurrences in this particular society as evident; is influenced by the realm of the culture and the social life of this people. Since this is a very small

environment the whole village gathers together whenever there is an occasion that needs a lot of people to accomplish.

(I) General Setting

The general setting of the village is divided into Residential, Common-Public Gatherings, Masculine and Feminine Spaces in the order as shown in the figure below.

(II) Private and Public spaces of the Houses

The Public, Masculine, Feminine and the Private spaces for all the houses are similar to this study sample. The simplified and detailed analysis of each house is being expounded throughout the discussions below.

Social Architecture in the context of the study setting

From the results obtained during the interview sessions and the observations on site, it was observed that most of the time, the residents spend on the outdoor in search for food cultivation of land out of the island along the coast for future purpose and care. The people have a lifestyle that the house is only used as a shelter during the night and unoccupied during the day light hours. These contributions to the use of spaces generally are influenced mainly by:

(I) Climatic Influences

The climatic nature of the environment is very hot during the early hours of the morning toward midday. For this reason the people find it relaxing to occupy time in the vegetable gardens, river banks processing sago or the sea in search for food.

(II) Working Environment

All daily duty that requires their human effort for the purpose of survival is located and found on the mainland where the only access to these resources is either by canoe or motorboat. These people only find sufficient time to move actively around the village during the afternoons appreciating the cool breeze as it reaches sunset.

Spatial Use and Distribution relating to family size and gender size

The usage of space in this society is divided into certain functions that accommodate the type of life lived in this community and the value they have placed in this types of space relating to their culture and tradition in giving it some sense of respect. These aspects throughout the study were analyzed individually according to the size of each family within the given setting space which are noted be from sample one to sample four.

Sample One (Bogodon Clan):

For sample one, the building is a two-bedroom house, which is divided into Gender (Male and Female) Spaces.

TABLE 1- THE BUILDING TYPE AND SPACE USAGE ACCORDING TO GENDER FOR HOUSE ONE

| BUILDING TYPE | SPACE USAGE (FUNCTION) | GENDER |
|--|--|---|
| Main House <ul style="list-style-type: none"> Verandah Bedroom 1 Bedroom 2 | -Story Telling (Chat), Discussions, Eating (Dinning) -Sleeping -Sleeping | Everyone (Male / Female) Couple (Male, Female) Child (Only Female Daughter) |
| Haus Kuk | -Cooking Storage | Female |
| Gathering Space | Family Discussions, Chatting, Eating, Relaxing | Everyone (Visitors-Family Members both Male & Female) |
| Loban (Firewood Shed) | -Storage | Male/Female |

Sample Two (Marai Clan):

For this family dwelling, it is similar to house one sample however the occupants have no children. The couple has allocated space for visitors to sleep and the same rooms are reserved for their future children.

TABLE 2- THE BUILDING TYPE AND SPACE USAGE ACCORDING TO GENDER FOR HOUSE TWO

| BUILDING TYPE | SPACE USAGE (FUNCTION) | GENDER |
|---|---|--|
| Main House <ul style="list-style-type: none"> Verandah Bedroom 1 Bedroom 2 Bedroom 3 | -Story Telling (Chat), Discussions, Eating (Dinning) -Sleeping -Sleeping -Sleeping | Everyone (Male / Female) Couple (Male/Female) Visitor (Female) Visitor (Male) |
| Haus Kuk (Kitchen) | -Cooking Storage | Female |
| Gathering Space | Family Discussions, Chatting, Eating, Relaxing | Everyone (Visitors-Family Members both Male & Female) |

| | | |
|-----------------------|----------|-------------|
| Loban (Firewood Shed) | -Storage | Male/Female |
|-----------------------|----------|-------------|

Sample Three (Belen Clan):

This sample is a family house consisting of the couple and their two children with them. They have an elder daughter who has left the family to be with the husband in the husband's village. An extra shelter or building on site is the "Bubu's Haus" which is built to house the older folks of the family. For this sample the building houses the grandmother.

TABLE 3- THE BUILDING TYPE AND SPACE USAGE ACCORDING TO GENDER FOR HOUSE THREE

| BUILDING TYPE | SPACE USAGE (FUNCTION) | GENDER |
|---|--|--|
| Main House <ul style="list-style-type: none"> Verandah Bedroom 1 (Master) Bedroom 2 | -Story Telling (Chat), Discussions, Eating (Dinning) -Sleeping -Sleeping | Everyone (Male / Female) Couple (Male/Female) Children (Male/Female) |
| 'Haus Kuk' | -Cooking Storage | Female |
| Gathering Space | Family Discussions, Chatting, Eating, Relaxing | Everyone (Visitors-Family Members both Male & Female) |
| 'Loban' (Firewood Shed) | -Storage | Male/Female |

Sample Four (Bogodon Clan):

The fourth building sample is made up of the couple and their three children, two daughters and a son.

TABLE 3- THE BUILDING TYPE AND SPACE USAGE ACCORDING TO GENDER FOR HOUSE FOUR

| BUILDING TYPE | SPACE USAGE (FUNCTION) | GENDER |
|---|--|--|
| Main House <ul style="list-style-type: none"> Verandah Bedroom 1 (Master) Bedroom 2 | -Story Telling (Chat), Discussions, Eating (Dinning) -Sleeping -Sleeping | Everyone (Male / Female) Couple (Male/Female) Children (Male/Female) |
| Haus Kuk (Kitchen) | -Cooking | Female |

| | | |
|-----------------------|--|---|
| | Storage | |
| Gathering Space | Family Discussions, Chatting, Eating, Relaxing | Everyone (Visitors-Family Members both Male & Female) |
| Loban (Firewood Shed) | -Storage | Everyone (Male/Female) |

Discussions

Most of the spaces is used by the public and is occupied as seen from the graph usually in the afternoons.

The feminine space in all samples is the kitchen where mainly cooking and eating takes place. Other parts of the setting that the women occupy is seen from the general public space use, figure 9 along the eastern side if the island.

As seen from the society and the particular study, the responses indicated on the study identify some of the evident western features being categorized under the Physical end Social Aspects.

Physical Aspects are recognized in terms of Material Usage, the Form of Buildings, Building Typology and their Functions. The Social Aspects are categorized and seen from the spatial usage in the general setting, public and private spaces and the Masculine and Feminine Spaces.

Elements of Western Influences on Indigenous Architecture

Physical Aspects

i. Material Use

From the physical analysis of the study most of the material has changed dramatically over the years. The use iron roofing and modern fasteners have long been used by this group of people following the introduction into the area during the fifties just before independence. From the interview on site, the ward member in his statement quoted, "*Ol dispela senis ibin kamap bipo tru araun fifties taim mipela liklik mangi yet*" (*these changes happened in the fifties when I was still a small boy*). According to what was said, there were evidences of strong transition of western influences at that time despite its location in reference to the main district of the province, the Lorengau town. At that time where Western European began to take over the native land the material that were used to build the buildings were also changed to suit the occupants mostly "*whites*" or European colonist and Christian Missionaries.

ii. Forms of Buildings

These changes of form are believed to have happened during the time of western invasion through German

Christian Missionaries that settled at the Lessau Health Center and the Bundralis Catholic mission Center to the east of the setting. The rectangular form of the building as seen from all the building comes from the idea of westernization during the transitional change when the Christian Missionaries invaded this part of the Island of Manus during the early fifties from the American and the colonial administration. From the understanding of the Manus lifestyle and Form in Architecture, the original form the buildings are said to round at the edges as seen from the Traditional houses of Pere Village (Mead, 1960) along the south coast of Manus and the latter Buyang people as studied by Milani (1992).

iii. Building Typology and their Functions

Nearly all buildings on site are separated as seen from the samples analyzed. The distribution of the buildings is according to the functions of each of the building types. The separate buildings make one household apartment.

This system of separating building in this area has not changed or even affected. It however believed that since these groups of people have been sea- fearers in history and lived on canoes, this kind of change is evident that it was adapted from an outside influence or because of the climatic aspects that are experienced throughout the year on the island where it is very hot during the day time. For this reason in most occasions, the people spend outside of the main house.

The nature of spending most of their time out of the village is the trend that originated from when these people would move from place to place in search of their essential needs being seafarers.

The likely changes that tried to influence this lifestyle would be the setting of the colonial administrations that is located east coast of the Island where the Evangelical missionaries settled during the fifties. The European buildings on this part of the setting within the N'yindrou group tried to accommodate all the functions within the same building that it failed to be successful on site.

Social Aspects

Spatial Usage of Space in the General Setting

With the understanding of the social and cultural influences of this people, not much has been affected by the western invasion or influence. They still maintain the social gathering as part of their everyday life by moving freely within and out of the island. The noted significance of the western threat however can be said to be evident in the social behaviors where men and woman are not restricted from the routes that they take as seen from figure 9 above. Both women and men are now not restricted because of the available services like trade stores which are placed along the route as shown in figure 9 above.

The introduction of trade stores where needed services are provided the social aspect of this lifestyle. It has to be adjusted to meet this demand that is not easy to ignore where the township service is a long way from the setting or the village.

Private and Public Space

As noted earlier from the study samples, private and public spaces are seen and observed without the conscious of the user. These places used are driven from the character of the user towards his or her personal integrity as the user of the building. Noted from samples one and two the demand from family responsibilities has become a tool that these spaces are not restricted to them but to the general public.

The men are only seen together during meeting and ceremonies or at the 'houseboy' or man house. At other times both men and women spend time discussing issues where they regularly meet along the routes that they take each day.

The design of the buildings that is used as the samples compared to other samples is evident to still maintain this spaces. However compared to sample one which was a semi-permanent 'western design' and form, the building has not taken into consideration the effect of these spaces and so the public space is shared between the users of the other neighboring building.

Masculine and Feminine Space

For the various functions that each of the buildings accommodate in relation to the Masculine and Feminine Space that was once valued by the older generation has simply vanished without much notice. According to the four sample houses studied, samples one and two noted that the couple meaning both the male and the female move within all the available space without much restriction unlike the previous older generation. According to the interviews conducted on site the cultural norm within this locality where the tasks needed to be accomplished as per the family daily routine for male and female has vanished in time. From this case study the adapted 'western culture' where there is no restriction is gender responsibilities were adopted to share responsibilities.

Acknowledgment

For a research project, which involves field data study and data collection, requires time, cooperation and contribution of many committed people. This case study however is no exception.

The author of this study would like to thank the four committed, hardworking research volunteers, namely Mr. Christopher Dobunaba, Mr. Alson N'drelan, Mr. Gregory Amai and Mr. Nick Opiti who assisted on site to carry out this survey and data collection, which was indeed a vital part of this paper. This author would like to make mention of the assistance from the village sample community that gave the author their undivided support especially the occupants of the house samples that were being observed over the span of one-week study; their assistance and trust is indeed appreciated. For hospitality and logistical support, this study wouldn't be successful without the Mundri and Tomon Family who took great care of the research team for the duration of the study.

Concerning academic mentoring, this study would not have been possible without the contributions from Dr. Cletus Gonduan who was the supervisor for this study as a research proposal.

Conclusion and recommendations

From the analyzed data noted above, there are physical evidences that the western world through the missionaries and the like with the influence on the main district town, Lorengau and the local Silihin Station with the current Forestry works have brought into the site a lot of changes. However, as seen from the study these changes have not really affected the way these groups of people respond to space in any major change.

The only threat that has caught up with the people is the 'western' influence through building materials from the main district province that will likely overtake their interest of using the locally owned building materials which are affordable and easily maintained. The western material introduction does not have much aesthetics however because of its durability; the people in this part of the province have embraced this change and are living beyond their means to maintain this form of building material.

This trend of change as noted earlier is and has been during the nineteen thirties toward the fifties when American based military came into power to use this part of the province as their contact to fight against their rivals during the wars. The Western Identity Crisis of change has now submerged most of what has been lost in terms of the cultural values and lifestyles that are rooted to the "Original N'yindrou".

Though much has dramatically changed the lifestyle of the people for the good, there is still the hidden link to the way this people react to the environment because of their beliefs and some of the cultural values that keep them from over reacting to the friendly environment full of resources and heritage.

With the architects mind of the interesting events that take place in this setting and how it affects the lives of the people like any Melanesian society has its richness that add I believe worth and identity to the Melanesian Architecture.

For this reason as quoted by Prof. Milani⁷:

"Culture must not be eliminated from design at all. If culture is neglected, that is not architecture at all"-Milani (2002) is in

factual statement worth considering to really address the reason why the inhabitant of a building react to the given setting to which he dwells. Also from this perspective is the reason to have faith in the dream of the client but in an approach to protect the client from the likely disadvantages that he would encounter in the future while settling the building in his indigenous setting.

From a quote by Boyle in one of the architecture seminar, he stated that; "It is not correct to respond to buildings as

architects, to design a building only from a clients view, but to criticize respectively to what disadvantages and disadvantages they have or might be having to the client”- Charles Boyle (2002).

Architects and designers as initial master builders of any building scale should embrace the client’s view in creating conducive habitual environment. This design practice is very important especially for a Melanesian Dweller as noted from this study. This study confirms the importance of cliental perspective and advocates responsible architectural design in ‘*Performative Architectural*’ practice in considering client behavioral patterns when introducing borrowed habitual lifestyle practice in an Indigenous locale.

There is therefore a human aspect of design that forms the physical and social functions of a building that are lacking in the so called prefabricated domestic buildings seen in the study locality. The modern designs that are adopted into the vernacular setting, do not accommodate such and therefore this study recommends that the architect in his approach to design for such indigenous must consider the space use and provide options to accommodate these functions where possible.

This in the view of this author is responsive design in a habitual setting where architecture and design can find their definite expression of form, function and space in a natural vernacular environment.

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