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Anwar Citation: AIP Conference Proceedings 1903, 080007
(2017); doi: 10.1063/1. 5011595 View online: https://doi.org/10.1063/1. 5011595 View Table of Contents: http://aip.scitation.org/toc/ apc/1903/1 Published by the American Institute of Physics Articles you may be interested in Transformation of
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Committees: The 3rd International Conference on Construction and Building Engineering (ICONBUILD 2017) AIP Conference Proceedings 1903, 010002 (2017);

10.1063/1.5011480 Energy audit role in building planning AIP Conference Proceedings 1903, 030004 (2017);

10.1063/1.5011511 Transformation of Dwelling Culture Based on Riverine Community in Musi River Palembang Bambang Wicaksono1, a), Ari Siswanto2, b), Susilo Kusdiwanggo3, c), Widya Fransiska Febriati Anwar 2, d) 1Department S3 Engineering Science Post Graduate Program,

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6

3Department Architecture Engineering, Brawijaya University, Jalan Mayjen Haryono 167 Malang Jawa Timur 65145 a)Corresponding author: bambangwi@live.com b)ari_sisw58@yahoo.co.id c)kusdiwanggo@gmail.com d)widyafrans76@yahoo.com Abstract. Palembang City development since the Palembang Darussalam Sultanate era to the reformation era has impact on the living culture community, less of the raft houses, houses on stilts transformed into a terraced house, and the house became the dominant land. Dwelling Culture oriented on transformation of river become land-oriented. The development has leaving identity, character, and potential of the riverine architecture and dwelling life of river. The goals of study are to describe a case and revealing the meaning of dwelling cultural transformation in Musi River society from the process of cultural acculturation and investigate the architectural aspect from the form of house and modes of dwelling through the structuralism approach. The data collection is conducted qualitatively by using data collection techniques such as observation, interview, literature study, whereas the method of analysis, is a method that is done through Levi-Strauss structuralism approach that identifies all the elements of community thought in a systematic procedure. The results showed the structure behind the orientation, position, shape, and layout of dwelling revealed through the meanings in it. It means, the change and development from cultural acculturation process which oriented in the land dwelling, based on structure thinking of Palembang society. INTRODUCTION The existence of local cultural identity becomes more important in this globalization era. Like things happen in other riverside city, Musi River settlement has changed and faded become an architecture which doesn't have Palembang traditional characteristic. According to Purnama (2000) the transformation of house is the process which lies in the empirical arrangement, but in the logical transformation arrangement, that is transformational relation which follow the thinking of Palembang people, that is the five or nine classification system which conscious and is not change. This system can explain every differences and similarity in the one house to other house. Even though empirically the existence of Palembang traditional house is decreasing and Palembang people make house with the form and architecture style which different from Palembang traditional house which cannot be seen with bare eyes and just can be seen from the formed. There is the structure in the behind of placement orientation, form, and the room arrangement in Limas House has connected with the structure think of Palembang people about harmony and balance in their life, relation with human and relation

with universe. That thing is expressed by the thinking oriented to one center point which paradoxical such as symbolized in the Amben Tetuo in Limas house. Palembang City development the Palembang Darussalam Sultanate era to the present impact on the living culture of the community, the less of raft houses, houses on stilts transformed into a terraced house, and the house became the dominant land. Housing development by mass activities or by individuals continue to grow very fast. Locations for housing development actually takes dry land, but in some areas in Palembang, the

Proceedings of the 3rd International Conference on Construction and Building Engineering (ICONBUILD) 2017 AIP Conf. Proc. 1903, 080007 -1- 080007-9; https://doi.org/10.1063/1. 5011595 Published by AIP Publishing. 978-0-7354-1591-1/\$30.00

5

housing development takes swampy areas, tidal areas, riverine and also the body of the river. The

goals of this study are, to observe the evolution processes of human settlement and to compare the traditional spatial forms and the transformed ones. Then, to emphasize the former attitude and to propose a sustainable strategy for developing the dwelling type by respecting and adopting the traditional culture and historical value. The concrete tactics for construction and architectural concepts are proposed in this paper.

Traditional Dwelling As a culture, building settlements and its constituent elements can be categorized as work of vernacular architecture. The term of vernacular architecture shows its association with native people, ethnic, folk, farmers, and traditional architecture itself. In the context of the environment and the resources available, they are usually the owner or a community built, using traditional technology. Meanwhile, housing of riverine can be understood as a settlement which has a life of agriculture, economic life, and social life depends on rivers, creeks, or channels in which the location and placement of the settlement are closely related to the geography of the river (Davis in Oliver, 1997: 157). The culture of living (dwelling culture) community banks of the Musi River (riverine) is the domain of research that has not been encroached upon. Some of the settlements are scattered in the archipelago just summarized into a comprehensive local knowledge (Waterson, 1990). Transformation of Dwelling Culture The transformation that happened in Limas house is first, the position which oriented to the river, now it appears before the road or beside the river and some even back to the river because the river is not functioned anymore. Secondly, the previous of limas house form shaped stage and now at the bottom of the house has made into a room in the sense that already switching function. Third, at the ram or guardrail of garang or terrace above the house has been changed into glass window. Fourth, roof material formerly used tile, now it has added even replaced with a tin roof. The fifth, the kitchen space moved down the house. After that, the transformation of Limas house also happened with the addition of bathroom and

WC. METHODOLOGY The type of this method is: a qualitative explorative (Creswell, 2008); This study is conditioned as a research with a qualitative approach through case study strategies with doing some observation such as interview about dwelling culture in Musi, Limas house start from history, age, transformation and social relations between society. The

purpose of this study is to explore the

cultural significance settled to unload, reveal, and open concept living culture in order to maintain the values of community and identity in society groups Musi riverine and its tributaries. The purpose of the interviews to obtain some data about cultural changes settled, house transformation from the orientation of the house, which once faced the river because the river is very useful and clean is used to meet the needs of bathing, washing and transportation routes. In addition, the function of the building is changed from facing the river to facing the road or from that facing the road still facing the road. Observations made focused on the culture of settlement located in Palembang which are still found many houses of limas such as in 1-7 Ulu Kelurahan Sebelang Ulu 1. The interviews were more focused on several things such as the first of the searches on the culture of settlement and transformation that occurred in the limas houses on the banks of the Musi River Palembang which in this case concerns the background, purpose and function of the Limas houses built on the development of the times to the times and analyze the construction of houses and rules that are still applied or rules that are not used anymore. The information taken based on consideration of the understanding and knowledge of the informant. The analytic method employed through the Levi-Strauss structuralism approach whereby this method identifies the entire element of the system of human thought in a systematic way or an essentially comparative method of analysis in which parts are analytically combined, recombined and transformed to obtain models (Purnama 2000). Method of Collecting Data The method which used for this research is qualitative method with doing some observation such as interview about dwelling culture of riverside society in Musi River Palembang, Limas house start from history, age, transformation and social relationship between societies. The culture concept which searched is about dwelling culture of riverside society in Musi Palembang. This research also use Case Study with three cases. The research location as the case in this research. The logic choosed by the double cases method is to choose the case which can predict the same result or different result. (Groat, 2002). This paper is considered by three kinds of traditional house form such as Raft house, Limas house, Warehouse.

(a) (b) (c) (d) (e) (f) FIGURE 1. (a) House in 12

1-7 Ulu Musi riverside, Palembang (b) House in 1 Ulu Musi Riverside, Palembang (c) House in 2 Ulu Musi Riverside, Palembang (d) House in 3-4 Ulu Musi riverside, Palembang (e) House in 5 Ulu Musi riverside, Palembang (f) House in 7 Ulu Musi riverside, Palembang Appropriate with the

purpose of this research is to identify the identity and analyze the

8

riverside settlement existence, so the election of this cases will determinate for purposive. The cases choose represent the reshuffle phenomena from the settlement of river principle become the settlement of land principle. As far as river still considerate in the development of settlement and building and as far as the land area is counted as the settlement principle in this day. The uniqueness case that is choose can give the findings which enrich the theory of riverside settlement. Method of Analysis Data This method used the structural analysis from Levi-Strauss, this method makes the structural become constant and universal, and then the tendency which can be observed is the transformation from house structure. This analysis method is used for cultural phenomena. Such the direct orientation and position structure. From this approach, the rooms in the Limas house and every owner activities has the structure which formed from some relation system that is constant and conscious. The structure which has conscious is reflected from the direction—lace, form, and room system in taht Limas House. This structuralism method identify all of element from the people thinking procedure systematically. Essentially, this analysis method can be define as comparison method. This thing causes from the isomorphic finding or similarity form at two or more contents. From this way, the result can be found from the similarity and the differences relation. LITERATURE REVIEW In the late 1970s Levi-Strauss (1963) introduces an impact on the views of structuralism anthropological approach architecture. Levi-Straus remain critical Brown (Arifin, 2010), that social relations only raw material for construction of models (social structure) to be constructed. The social structure is a tool that is used to construct social relations to describe the community. The social structure is not a description of a phenomenon or social reality, but rather a method that is used to describe the phenomenon or reality. The social structure has nothing to do with reality or empirical phenomena that can be observed and observable in the social life as described by Radcliffe-Brown (1952). The social structure is a model developed by the researchers based on the empirical phenomena he saw, then used to explain the phenomenon. The structural transformation behind the Limas House of Palembang with the structural think of Palembang people according to research Purnama (2000), the structure is implied in the concept of Batanghari Sembilan affirm the existence and the philosophy of life of Palembang people who cannot be separated from the desire to maintain harmony and harmony sesame mortal. In addition, all activities of the lives of people who live in the house also shows the existence of regularities based on the way of thinking of Palembang people. The regularities in the spatial plan of the limas house and all its inhabitants' activities are at an unconscious level and this is a transformation process embodied in the orientation of the direction and location, the basic shape and spatial of the Palembang house. TABLE 1. The chart of structural transformation behind the Limas house of Palembang with the structural think of Palembang people Characteristic Level Realization Abstract Logic Abstract Concrete Myth Balance Harmony The shadow of God - Sultan - World Leader Create Concrete Socio Cultural Phenomenon Pancalang Lima (Keraton and Four Overseas) Transformed Batanghari Sembilan (Musi River and Eight Tributary) Transformed Limas House (Amben Tetuo and Eight Other Rooms) Regularity in the spatial plan of the Limas house and its settlement activity is in the absolute level is a transformation that manifests in the orientation of the direction and location, the basic shape, and the spatial plan of the limas house. The same is true of the concept of the

pancalang lima and batanghari sembilan structures so that they reflect balance and harmony at amben tetuo, the Keraton and Musi river as the balance and harmony of each opposite point. The table above explains the existence of the structure behind the orientation of the location, shape and layout of the Palembang house which is a manifestation of the thinking of the people concerned about the harmony and balance in life between humans and the universe. This is manifested by the orientation of thinking at a paradoxical center point as symbolized on amben tetuo at the Palembang house. (Purnama, 2000) Some studies related to the Musi River has been started and is at least an insight into this study was undertaken. Some of them are research settlement at the mouth of the breech area (Nugroho, 1999). Nugroho intends to identify the characteristics of traditional housing Musi River estuary with the aspect of philosophy and physical formation of settlements. Nugroho concluded that the settlement of the estuary in Breech is the custom products that can be developed into an attractive location for tourism. Meanwhile, Siswanto (1999) vernacular settlements in South Sumatra such as limas house and raft house of corner of the building and system structure. While the material point of view, Barendregt (1997) highlights the architectural changes in the migration process in the highlands of South Sumatra. Based on approach comparative analysis on the different architectural traditions in the region of South Sumatra and through the eyes of its own public groups traditionally said, resulting puyang as one insight in spatial orientation. Locus Barendregt research is in Pasemah and Serawai with some cases of home, such as home victimizing, bari house, and the house ulu. In a more specific scope, Taal (1997) saw the change and diversification of functions on a Limas house in Palembang. Under the influence of building materials and function, house limas are always changing. Social change impacts on cultural aspects. Limas house less and less special and important in expressing the status of owner. According to Kusdiwanggo (2016), in order to seek a greater insight about how the role and position of culture settled on the riverine of Musi society, the culture of living can be dived deeper with more conventional cultural meanings critized in three perspectives. First, the settlement bank of the river no longer seen as an element of material, but rather seen as: 1. The products of the process of dynamic interaction with all other cultures around it, thus allowing the process of borrowing, adoption, assimilation, appropriation, enculturation, enculturation through our values and artifacts. 2. Settlement can be placed in the midst of internal and external stress in society. Internal-external voltage can be meaningful traditional-modernity. Meaning of riverside settlements may change between generations. 3. Riverside settlement process is seen as an upgrade constantly through the stages of transmission, transformation, selection, and emancipation (liberation). Second, the settlement bank of the river no longer seen as a systemic unity intact, but each constituent settlements containing voltage of the process, they are composed of subsystems that move dynamically and autonomously. In this indispensable constituent subsystems mapping system of settlements in the surrounding areas. A short of subsystems were scattered to then compiled into a mosaic intact (back). Third, the concept of settlement is no longer seen as a basic principle of social order-culture riverside rigid, but is seen as a commitment to the cultural values of the riverine. Based on research Mentayani (2015) found eight transformation those are transformations from water area to land, traditional lot to functional lot, floating construction platform to non-platform, locality to modernity, contemporary vernacular, no-madden, and dwelling, from relationship system to independent and neighbour system, transformation from natural material to prefabrication as a response for dangerous threat and mitigation, from dwelling function to productive function, religion-tradition process and dwelling to

economical private. From the way of transformation, there are three ways: movement, addition, and combination both of them and using the adaptive strategy that is the adaptation by adjustment, adaptation by reaction, adaptation by withdrawing and then the combination all of them. This paper explains form of house and organization in Musi river riverine settlement that never research by structural approachment in order to be material comparison according to transformation meaning and logical rules. So, it can get house model development and settlement organization in accordance with local cultural values in that area. The Main Factor of Dwelling Transformation The physical elements of settlement and the society activities which transform from Basic River to basic land are: building orientation, building function, material for used, environmental infrastructure, river and daily activities. Building orientation River as building orientation and main access become oriented to road. Riverside house generally oriented to river. In the first layer of the house: Terrace which lies in river area as main access to river, and the terrace from the front of house as the access to road. Building material The using of wood material as main foundation or floating foundation at the raft house and main pillar of platform house become concrete material as the main building material in the land. Transformation of construction material from natural to fabrication is influenced from fire burning disaster which ever happened in the 7 Ulu Area, which is burning many houses. Until every house have transformation of construction material. In the riverside area, the dominant of using wood material start from pillar, floor, wall and roof material for covering roof. The scaling of setting easiness, setting cost and material price the form of modernity local transformation is found in the transformation of building typology from vernacular traditional to contemporary: room function, house oriented, building material, and the generation of household. Wood material and special carved partly is adopted for the traditional form but now has disappeared. Dwelling function Dwelling function and trading related with the river function. River function to dwelling building function and trading which related with the development of land road (dwelling and stall, dwelling and store, dwelling and handphone store). Every function of the room in the house has changed, the example is the bathroom and WC which in the past is not inside the house because the society bath, wash and urinate in the river. But now because the river cannot functioned again, so in the down part or Upper part of Limas House has transformed become the room which is more permanent. The permanent room become the additional facility for descent generation. The Infrastructure of river environment The infrastructure of river environment in the Seberang Ulu Palembang Area doesn't increase. Precisely ignored, like the river path which full of dock in the past and the access of boat transportation doesn't seem again right now. The infrastructure such as bridge also doesn't have a good maintenance because the society more focus to house transformation in order to look modern suit with the age development. The river must through with the way of using boat or bridge right now has changed become sewer, because the society take the border of river until the river become narrow. Daily Activities Daily activities, almost the riverside society are the fisherman, which define always depend with river. But now, the society prefer choose to work as the employee to increase natural quality. The society in this age prefer to choose WC inside the house with the reason of personal need. Until the society values has changed become individual values. The settlement identity of Musi river can identified from the riverside architecture. The identity consists of intermediate scale that is settlement pattern, network area, area function and building, building and accessibility area. Meanwhile for micro scale can identified from dwelling pattern, typology of building, function of building, material and construction, orientation of building, the road network and bridge. For dwelling

pattern scale can be explained from Limas house component, riverside house, bridge, toilet and cultural life of riverside society with other society. TABLE 2. Typical dwelling riverine transformation Area House Owner Age of the Years of House Transformation Typical Dwelling Transformation I ulu Kgs. Jailani 3-4 Ulu Kemas Sofyan Hasanudin Kemas Ali Muhammad Akil Yani Edroes Muhammad H. Salim Nyayu Zaenab Zein 5 Ulu H. Abdulah Area House Owner H. Rahman Kgs H. Muhammad Badrun Kemas Muhammad Mgs. Hasan 7 Ulu Siti Aisyah Habib Hola Rogaya H. Anang Abdul Holik Kgs. Agus Cik Syarifudin Rohma Nyimas More than 100 years 1990 Transformation from dwelling fuction to productive function More than 100 years 1989 Transformation from traditional lot to functional lot More than Transformation from natural material to prefabrication as a 100 years 1988 response for dangerous threat and mitigation More than 130 years 1997 Transformation from traditional lot to functional lot More than 150 years 1975 Transformation from dwelling fuction to productive function More than 150 years 1970 Transformation from dwelling fuction to productive function More than 130 years 2000 Transformation from dwelling fuction to productive function More than 150 years 1995 Transformation from dwelling fuction to productive function ± 200 years 1981 Transformation from locality to modernity, contemporary vernacular no madden and dwelling ± 80 years 1989 Transformation from locality to modernity, contemporary vernacular no madden and dwelling Age of the Years of House Transformation Typical Dwelling Transformation ± 85 years 1992 Transformation from locality to modernity, contemporary vernacular no madden and dwelling ± 120 years 1997 Transformation from dwelling function to productive function ± 120 years 1990 Transformation from water area to land area ± 150 years 2000 Transformation from relationship system to independent and neighbor system ± 120 years 1997 Transformation from water area to land area ± 250 years 2000 Transformation from relationship system to independent and neighbor system More than 200 years 1976 Transformation from water area to land area More than 200 years 1980 Transformation from water area to land area More than Transformation from dwelling functions to productive 100 years 1990 function More than 100 years 1990 Transformation from water area to land area ± 200 years 1990 Transformation from dwelling function to productive function ± 300 years 1998 Transformation from floating construction to platform to non-platform. ± 300 years 1987 Transformation from traditional lot to functional lot The settlement of Musi river Palembang is formed from the physical component of the building with the cultural network of the river life. The formed settlement pattern is influenced by river morphology, river depth and accessibility area. Factors influencing the formation of identity and existence of riverside settlements that is economic factors, kinship, government policy, habitation and congregation culture, the tradition of building houses and habitation, and dependence on river functions. The structural analysis of Levi Strauss refers to the syntagmatic analytic and paradigmatic. Syntagm or Syntagmatic Relation is a composition or a combination based on the principle of linearity that refers to the point of view or society mindset. While the paradigmatic relationship is the relationship of language elements contained in the speech and is vertical. In language, we can say that word is paradigm and sentence is syntagm. All messages always consist of a "selection" (from paradigms) and "combinations" (in syntagm). Based on Levi Strauss's analysis, the meaning of house transformation can occur because of two things, it is because the change of mindset of the inhabitant community and the absence of change of mindset but there are influences from outside (modernization). DISCUSSION AND RESULT Kampong 1 Ulu, 2 Ulu, 3 Ulu, 5 Ulu, 7 Ulu and the others is settlement Musi riverside part Seberang Ulu 1 Palembang.

It is mostly populated by a nonindigenous people called the	9
Uluan. For riverside Musi Palembang,	
in the past, the spatial change and environmental impact were inconspicuous.	1
Nowadays, when the traditional and indigenous culture, environment, and settlement are transformed by external culture, ecological invasion, and inappropriate policies; there is also rapid change of the characteristic living style and dwelling types. Compared to the	1
other villages, Kampong 1-7 Ulu, and the others	
was lucky to keep its own tradition components of settlement.	2
More details of the design principles and more effective items can be established based on the different considerations for the architecture plan of new dwellings (Fig. 2). TABLE	1
3.	
The design principle of a modern dwelling. Principles Contents	1
of Problem Solving	
Design Goal Principles Contents Transformation Material and Structure Site Waste water and gray water	1
Dringiples Contents of Transformation	

Principles Contents of Transformation

Transition between port and front court Comprehensive Dwelling - Using local material - Local
Wisdom - Appropriate building type

- Simbar in roof peak Adaptive structure for environment Flexible indoor space Cross ventilation Natural and flexible
- Site definition Traditional boundary with river water Natural topography River Oriented River source River Dependent Natural Bathroom Problem Solving Design Goal Principles Contents Suitable outdoor space River oriented Corridor between front room and kitchen Space with gradation Permanent Warehouse under Limas House Dwelling Room constitution Resting platform as title mark Multifunctional Living Room Lawang Kipas Kitchen and stock Room Function and Activities Roof Material is changed by Modernization Permane Transformation of House nt Lower Part Permanent Lower Part FIGURE 2. Factors affecting transformation The original human of Musi Palembang inspires

us the meaning of sustainable primitive society, where the indigenous culture, natural landscape, and the tribe ethics rely on each other. Nowadays, in order to response to different external impacts, the dwelling development becomes a complicated phenomenon on the

2

1

riverside Musi Palembang. The

main challenges for the Riverine people will be: how to guard their own traditions without ignoring the modernization, how to use the modern technology without abandoning the ancient wisdom with nature and how to increase the living quality without forgetting the spirit of the living culture.

1

CONCLUSION Riverine people of Musi Riverside are the

most original human settlement for Palembang that is almost intact and represents an important human culture and a unique landscape.

2

In Palembang, there are various traditional houses, which corresponds to the characteristics of topography, ethnic, and locationVernacular settlement of Palembang-based on their characteristic shows the ability of local knowledge to adapt to the environment. For example, Limas house and Raft house which have a specific foundation. Riverine settlements are a dynamic process of interaction with other cultural values around them, allowing for the process of borrowing, adoption,

assimilation, appropriation, inculturation, enculturation either through values or artifacts. Riparian settlements are seen as a process that is constantly updated through the stages of transmission, transformation, selection, and emancipation (liberation). Those are: 1. Transmission, the transmission which happened in the Musi riverside settlement is linear transmission which oriented to river. Because the river is the main source of riverside society. 2. Transformation, transformation is the prominent thing in this research. That thing makes all of room role change the function appropriate with the condition. 3. Selection, the natural selection has made the new form of riverside traditional house. 4. Emancipation, the emancipation values which is not follow the traditional rules. Until the rules of house constructing does not exist and rarely execute. Settlement systems are never intact and solid, consisting of sub systems that can move dynamically and autonomously. Each subsystem can present a new meaning and replace the old one especially when the riverside settlements pass across generations. Each generation can give meaning as a pattern of its pattern. In this regard need to be examined what values are there and exist and serve as a unifying commitment riverside settlements which harmony with the structural think of Musi riverside. REFERENCES 1. Arifin, Zainal., Jurnal Antropologi, 6 (9), 81-94 (2010). 2. B. Barendregt, "Architectural Transformation in the Process of Migration The South Sumatran Highlands, in Transformation of House and Settlements in Western Indonesia: Changing Values and Meaning of Built Forms in History and the Process of Modernisation," Leiden: Leiden University (1997). 3. J. W. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, (California: Sage Publications, 2008). 4. L. Groat, & D. Wang, Architectural Research Methods (New York: John Wiley & Sons. Inc.) 5. Kuo, S.T. Kuo & Chen, C.-J. Chen., Sustainable Development and Planning IV, Vol. 1, 363, WIT Transactions on Ecology and the Environment, WIT Press. (2009). 6. Kusdiwanggo, Susilo et al., "General Application Data DIPI research," (unpublished) 7. Mentayani, Ira., Identitas dan Eksistensi permukiman tepi sungai di Banjarmasin, National Seminar 2016, Universitas Lambung Mangkurat, 2016. 8. Mentayani, Ira., Transformasi Adaptif Permukiman Tepi Sungai di kota Banjarmasin, kasus: Barito-Muara Kuin, Martapura dan Alalak," Dissertation, Universitas Gadjah Mada, Yogyakarta, 2015. 9. S. Nugroho, Traditional Estuary Settlement of Sungsang Area South Sumatera in Vernaculat Settlement: The Role of Local Knowledge in Built Environmen, in Proceeding Universitas Indonesia, (Depok, 1999). 10. P. Oliver, Encyclopedia of Vernacular Architecture of the World, Chambrige University Press (1997). 11. Purnama, Dadang Hikmah., "Rumah Limas dan Struktur Pemikiran Orang Palembang," Thesis, Universitas Gadjah Mada, Yogyakarta (2000). 12. Purnama, Dadang Hikmah., Studi makna struktural rumah uluan orang Basemah di daerah dataran tinggi bukit barisan provinsi Sumatera Selatan, Dissertation, Universitas Padjajaran, Bandung (2008). 13. Siswanto, Ari., "Vernacular Settlement of South Sumatra as an Answer to Settlement Problem Arised Today in Vernaculat Settlement: The Role of Local Knowledge in Built Environment," Seminar Proceeding, Depok: UI (1999). 14. Taal, Sandra., "Change and Diversification in the Function of the Limas House of Palembang, in Transformation of House and Settlements in Western Indonesia: Changing Values and Meaning of Built Forms in History and the Process of Modernisation," Leiden: Leiden University (1997). 080007-1 080007-2 080007-3 080007-4 080007-5 080007-6 080007-7 080007-8 080007-9

sources:

